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TAX EXPENDITURES AND EVALUATIONS

2000

Canada



TAX EXPENDITURES AND EVALUATIONS

2000



Department of Finance
Canada

Ministère des Finances
Canada



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PREFACE

Starting with this issue, *Tax Expenditures* will be published as two separate documents: *Tax Expenditures and Evaluations* and *Tax Expenditures: Notes to the Estimates/Projections*.

Tax Expenditures and Evaluations, which will be published annually, will continue to provide estimates and projections for broadly defined tax expenditures. In addition, starting this year, this report will include descriptive papers on tax expenditures that readers may find useful. This year's report contains the following three papers:

- “Defining Tax Expenditures.” In light of developments in this area over the past decade and in light of the diverse practices followed by different countries in reporting tax expenditures, this paper reviews various methodologies for identifying and reporting tax expenditures.
- “The Alternative Minimum Tax.” This paper reviews the alternative minimum tax (AMT) and demonstrates that the Canadian AMT has achieved its objective of reducing the extent to which high-income tax filers pay little or no income tax.
- “GST/HST Treatment of Export Distribution.” This paper provides further background information on measures in this area introduced in the 2000 budget.

The second document, *Tax Expenditures: Notes to the Estimates/Projections*, sets out the approach used in developing the estimates and projections for the tax expenditures contained in the first report. It also provides a description of each tax expenditure and a statement of their objectives. Until now, this information was published in the same report as the estimates and projections; the move to separate documents will therefore make the main report easier to use. This second report will be published less frequently than the main report given that the information it contains does not change often.

Part 1

TAX EXPENDITURES: ESTIMATES AND PROJECTIONS

ESTIMATES AND PROJECTIONS OF TAX EXPENDITURES

While there is agreement on the conceptual definition of tax expenditures, there is no widely accepted operational methodology for estimating them. A range of methodologies exists internationally, some restrictive, others very broad. The broadest of the available options is to estimate tax expenditures as all deviations from a benchmark tax system. Typically, these deviations take the form of exemptions, deductions, rate reductions, rebates, credits, deferrals and carry-overs.

The approach used in this document seeks to provide as much information as possible to the reader, without getting into a controversy as to whether or not an item is a tax expenditure. Consequently, any deviation from a narrowly defined tax structure is reported. This allows the reader to decide whether or not a particular item qualifies as a tax expenditure. These deviations from the tax system are reported in two parts: one includes a list of all items that could be considered tax expenditures under a very broad (and perhaps unrealistic) definition; all other deviations from the benchmark tax system are reported as memorandum items.

Caveats

Care must be taken in interpreting the estimates and projections of tax expenditures in the tables for the following reasons.

- Tax expenditures are values of tax revenues forgone to achieve a variety of economic and social objectives. Whether or not the magnitudes of tax expenditures are appropriate depends upon an evaluation of the social and economic policies that generated them. The values reported in the tables provide no information to permit such an evaluation.
- Estimates of various tax expenditure items cannot be added together – this is because the cost of each tax expenditure is estimated separately, assuming that all other tax provisions remain unchanged.
- The estimates assume all other factors remain unchanged (i.e., there is no allowance for behavioural changes, consequential government policy changes or changes in aggregate economic activity in response to the change in the tax expenditure).
- In addition to these considerations, the projections are subject to forecast error and are “best efforts” that have no greater degree of reliability than the variables that explain them.
- The federal and provincial income tax systems interact with each other to various degrees. As a result, changes to tax expenditures in the federal system may have consequences for provincial tax revenues. In this publication, however, any such provincial effects are not taken into account – that is, the tax expenditure estimates are purely federal in nature.
- In the case of the harmonized sales tax in effect in Nova Scotia, New Brunswick, and Newfoundland and Labrador, only the federal cost of the tax expenditures is reported.

It should also be noted that, on occasion, the estimated or projected change in the value of a tax expenditure in this report does not coincide with that shown in the 2000 budget. For example, this report shows that the cost of the capital gains inclusion rate increased by \$450 million between 1999 and 2000. This increase is due to the reduction in the inclusion rate from three-quarters to two-thirds that was announced in the 2000 budget. However, according to the 2000 budget estimate, the cost of this change is only \$135 million for that same period. By itself, the reduction in the capital gains inclusion rate raises tax expenditures and lowers budgetary revenues by the same amount. But the lower inclusion rate is expected to induce additional realizations, which reinforces the increase in tax expenditures while providing an offset to the loss in budgetary revenues. As a result, a substantial gap between the two estimates emerges.

A second example is the change in the partial exemption of scholarship, fellowship and bursary income, which was also announced in the 2000 budget. The cost of this change was estimated at \$30 million for the 2000 tax year. In contrast, the associated tax expenditure provided in this document is \$16 million in 2000 (up \$13 million from \$3 million in 1999). In this case, the apparent disparity is largely a matter of presentation. The total cost of this measure shown in the budget is spread over two or more categories in this report. The 2000 budget estimate of \$30 million consists of \$13 million that will be claimed by students and a further \$17 million that will either be carried forward or transferred to parents and claimed by them. These amounts are shown separately in this report.

WHAT'S NEW IN THE 2000 REPORT?

The 2000 budget made changes that affect the value of a large number of tax expenditures. The benchmark against which tax expenditures are measured was altered by reducing the middle tax rate and reintroducing full indexation in the personal income tax system, and by reducing the general corporate tax rate. This has an indirect effect on the value of personal and corporate tax expenditures. For example, the tax expenditures associated with the low rate for small business and for manufacturing and processing are reduced because they are measured against a lower benchmark. In addition, changes were made to specific tax expenditures, and this affects their value directly.

These changes are noted below.

Personal Income Tax

Eliminate Automatic Increases in the Tax Burden Due to Inflation

- Immediately restore full indexation of the tax system effective January 1, 2000, for all amounts that were previously partially indexed, the income thresholds affecting these amounts, and the taxable income thresholds at which all marginal tax rates begin to apply. The indexation factor for a given taxation year beginning January 1 is the percentage change in the average consumer price index for the 12-month period ending on September 30 of the previous year.

-
- Indexation will increase tax expenditures associated with indexed credits, such as the spousal credit, by increasing their value, and with credits with indexed thresholds, such as the Canada Child Tax Benefit, by increasing the number of eligible claimants.
 - On the other hand, by eliminating bracket creep, indexation will reduce the tax expenditures associated with non-refundable credits, such as the tuition credit, used by low-income earners to reduce their federal taxes owing to zero.

Reduce the High Tax Burden at the Middle-Income Level

- Reduce the middle income tax rate from 26 per cent to 24 per cent effective July 1, 2000.
- Increase the 5-per-cent surtax threshold from \$12,500 to \$18,500 of basic federal tax (at an income level of about \$85,000) effective July 1, 2000, and reduce the surtax rate from 5 per cent to 4 per cent effective January 1, 2001.
- These measures will generally reduce tax expenditures associated with certain deductions and non-taxable benefits, such as business-paid health and dental benefits, by reducing marginal tax rates.

Increase Support for Children

- Increase the Canada Child Tax Benefit base benefit by \$70 per child, including indexation, effective July 2000.
- By July 2001, increase the National Child Benefit supplement by \$200 per child, including indexation, from the currently scheduled July 2000 levels of \$955 for the first child, \$755 for the second child and \$680 for each subsequent child.

Make the Income Tax System More Internationally Competitive

- Reduce the capital gains inclusion rate from three-quarters to two-thirds for capital gains realized after February 27, 2000.
- Postpone taxation of gains on shares acquired under qualifying stock options to when shares are sold rather than when options are exercised.
- Allow tax-free rollover of capital gains on qualified investments from one small business to another.
- Increase the limit for the foreign property rule in respect of deferred income plans generally to 25 per cent for 2000 and 30 per cent after 2000, from the prior level of 20 per cent. The limit had been raised from 10 per cent between 1990 and 1994.
- Increase the annual exemption on scholarship, fellowship and bursary income from \$500 to \$3,000 beginning with the 2000 taxation year. The increase applies only to amounts received by students enrolled in programs that entitle them to claim the education credit.

Enhance Tax Assistance for Charities

- Eliminate the \$1,000 minimum deemed adjusted cost base and deemed proceeds of disposition when personal-use property is donated as a charitable gift, if the personal-use property is acquired after February 27, 2000.
- Extend the charitable donations tax credit to donations of registered retirement savings plan, registered retirement income fund and insurance proceeds that are made as a consequence of direct beneficiary designations. This measure will apply in respect of an individual's death that occurs after 1998.
- Further enhance the incentives for the protection of ecologically sensitive lands by reducing the income inclusion rate by one-half in respect of capital gains arising from gifts of ecologically sensitive land and related easements, covenants and servitudes to qualified donees other than private foundations.
- Reduce by half the income inclusion of stock option employment benefits realized as a result of the charitable donations of shares acquired with employee stock options. This will allow the tax treatment of such donations to parallel the reduced capital gains inclusion rate for donations of publicly traded securities.

Enhance Tax Assistance for Persons With Disabilities

- Extend eligibility for the disability tax credit (DTC) to individuals requiring extensive therapy.
- Expand the list of relatives to whom the DTC can be transferred.
- Increase the value of the DTC by up to \$500 for families caring for children eligible for the DTC.
- Increase the maximum child care expense deduction available in respect of persons eligible for the DTC to \$10,000 from \$7,000.
- Make expenses relating to the costs of adapting a new home to the needs of a disabled person eligible under the medical expense tax credit.
- Expand the attendant care deduction to include the cost of an attendant required in order to attend school.

Other

- Reduce the special federal surtax levied on individuals who have income that is considered to have been earned in Canada, but which is not considered to have been earned in a province. In light of recent changes in provincial tax rates, the federal surtax on income not earned in a province will be reduced from 52 per cent of basic federal tax to 48 per cent.
- Offset interest on personal tax overpayments and underpayments to ensure that refund interest accruing over a period is taxed only to the extent that it exceeds any arrears interest that accrued over the same period to which the refund interest relates.

Business Income Tax

- Reduce the federal corporate income tax rate on business income not eligible for special tax treatment by 1 percentage point from 28 to 27 per cent, effective January 1, 2001. This lower rate will not apply to small business and Canadian manufacturing and processing income, investment income that benefits from refundable tax provisions or income from non-renewable natural resource activities. The reduction will also not apply to mutual fund corporations, mortgage investment corporations and investment corporations. As such, the corporate tax rate used for the benchmark, including the corporate surtax, is reduced to 28.12 per cent for 2001 and 2002, from 29.12 per cent in previous years.
- Reduce the federal corporate income tax rate on income between \$200,000 and \$300,000 earned by a Canadian-controlled private corporation from an active business carried on in Canada by 7 percentage points from 28 to 21 per cent, effective January 1, 2001. Income eligible for this lower rate will be reduced to the extent that the corporation has manufacturing and processing (M&P) income subject to the reduced M&P tax rate or income from resource activities.
- Extend the temporary capital tax surcharge on large deposit-taking institutions to October 31, 2001, pending completion of a review of the application of the surcharge. This review was announced in June 1999 as part of the reform of the financial services sector.

Sales Tax

- Introduce a new partial rebate for the goods and services tax/harmonized sales tax (GST/HST) paid on newly constructed or substantially renovated residential rental property.

THE TAX EXPENDITURES

Both the estimates and the projected values of the tax expenditures associated with the GST/HST have been substantially revised. These result from the use of more recent (1996) and more detailed data that have become available from Statistics Canada. This improved data has allowed us to prepare more accurate estimates and projections of these tax expenditures. This increased accuracy is due to improved data on the overall level of total expenditures on goods and services and on the proportion of that spending that is non-taxable.

Other minor changes have been made to provide information that was not previously available and to update or otherwise improve the estimates and projections for certain measures. For example, more detailed estimates and projections are provided relating to refundable taxes on investment income of private corporations. In previous years, this measure reflected only the portion of corporate taxes collected that were refundable. This report now provides details of the additional refundable taxes collected, the amount refunded and the net expenditure.

Tables 1 to 3 provide tax expenditure values for personal income tax, corporate income tax and the GST/HST for the years 1995 to 2002. In the case of personal income tax, tax expenditures are grouped according to functional categories. This grouping is provided solely for organizational purposes. It is not intended as a policy justification for the specific provisions and all tax measures do not fall neatly into one of the categories.

All estimates are reported in millions of dollars. The letter "S" indicates that the cost is less than \$2.5 million, "n.a." signifies that data were not available and a dash means that the tax expenditure was not in effect. The inclusion in the report of items for which estimates are not available is warranted given that the report is designed to provide information on the type of assistance delivered through the tax system even if it is not always possible to provide a quantitative estimate. Work is continuing to obtain quantitative estimates where possible. For example, the personal income tax expenditure associated with the reclassification of flow-through shares is a new item this year.

Table 1

Personal income tax expenditures* †

	Estimates			Projections				
	1995	1996	1997	1998	1999	2000	2001	2002
	(\$ millions)							
Culture and Recreation								
Deduction for clergy residence	56	58	58	60	60	60	60	60
Flow-through of capital cost allowance (CCA) on Canadian films ¹	48	—	—	—	—	—	—	—
Deduction for certain contributions by individuals who have taken vows of perpetual poverty	S	S	S	S	S	S	S	S
Write-off of Canadian art purchased by unincorporated businesses	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Assistance for artists	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deduction for artists and musicians	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of capital gains on gifts of cultural property	n.a.	n.a.	7	7	7	7	7	7
Education								
Tuition fee credit ²	195	210	225	205	200	195	200	210
Education credit ³	44	55	64	76	72	68	69	71
Education and tuition fee credits transferred ⁴	215	260	375	425	435	435	450	460
Carry-forward of education and tuition fee credits ⁵	—	—	—	30	30	115	130	140
Student loan interest credit ⁶	—	—	—	120	135	150	160	175
Registered education savings plans (RESPs) ⁷	n.a.	35	32	43	80	135	210	290
Partial exemption of scholarship, fellowship and bursary income ⁸	6	6	4	3	3	16	16	16
Deduction of teachers' exchange fund contributions	S	S	S	S	S	S	S	S

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the companion document, *Tax Expenditures: Notes to the Estimates/Projections, for a discussion of the reasons for this.*

The 2000 budget proposed to restore full indexation to the personal income tax system effective January 1, 2000. This eliminates the provision put in place in 1986 that applied indexation to the personal income tax system only for inflation above 3 per cent. Parameters affected include the basic personal credit and the level of income at which the middle and top tax rates begin to apply. The 2000 budget also proposed to reduce the middle tax rate to 24 per cent from 26 per cent effective July 1, 2000. These measures, which will reduce average tax rates in the 2000 tax year and again in 2001, explain some of the changes in tax expenditures from 1999 to 2000, and again from 2000 to 2001.

Personal income tax expenditures (cont'd)

[illegible]

Table 1

Personal income tax expenditures (*cont'd*)

	Estimates			Projections				
	1995	1996	1997	1998	1999	2000	2001	2002
	(\$ millions)							
Farming and Fishing								
\$500,000 lifetime capital gains exemption for farm property ¹⁶	275	325	355	365	365	325	325	330
Net Income Stabilization Account								
Deferral of tax on government contributions ¹⁷	31	115	89	80	100	87	87	87
Deferral of tax on bonus and interest income	14	19	21	32	38	43	48	53
Taxable withdrawals ¹⁷	-15	-35	-35	-63	-105	-67	-67	-67
Deferral of income from destruction of livestock	S	S	S	S	S	S	S	S
Deferral of income from grain sold through cash purchase tickets ^{17, 18}	19	6	-1	-32	-9	-9	-9	-9
Deferral through 10-year capital gain reserve ¹⁷	8	-2	9	5	5	5	5	5
Deferral of capital gains through intergenerational rollovers of family farms	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Exemption from making quarterly tax instalments	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Cash basis accounting	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Flexibility in inventory accounting	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a

Federal-Provincial Financing Arrangements

Quebec abatement	2,320	2,410	2,560	2,730	2,840	2,925	3,025	3,155
Transfers of income tax room to provinces	9,745	10,240	11,215	12,105	12,630	12,995	13,455	14,060

Table 1

Personal income tax expenditures (cont'd)

	Estimates			Projections				
	1995	1996	1997	1998	1999	2000	2001	2002
	(\$ millions)							
General Business and Investment								
\$100,000 lifetime capital gains exemption ¹⁹	34	—	—	—	—	—	—	—
Partial inclusion of capital gains ²⁰	405	655	920	930	940	1,390	1,370	1,355
Deduction of limited partnership losses	195	205	185	200	215	225	235	240
Investment tax credits	54	39	25	25	26	26	27	27
Deferral through five-year capital gain reserve ¹⁷	-6	12	17	8	8	8	8	8
Deferral through capital gains rollovers ²¹	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral through use of billed-basis accounting by professionals	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deduction of accelerated tax depreciation ²²	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
\$1,000 capital gains exemption on personal-use property ²³	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
\$200 capital gains exemption on foreign exchange transactions	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Taxation of capital gains upon realization	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Health								
Non-taxation of business-paid health and dental benefits ²⁴	1,440	1,490	1,625	1,755	1,760	1,720	1,685	1,675
Disability tax credit (DTC) ^{12, 25}	270	265	270	270	275	310	310	310
Medical expense tax credit ^{12, 26}	305	330	350	355	375	395	430	465
Medical expense supplement for earners ^{12, 27}	—	—	29	30	33	37	39	41

Personal income tax expenditures (cont'd)

[illegible]

Table 1
Personal income tax expenditures (cont'd)

[illegible]

Table 1

Personal income tax expenditures (cont'd)

	Estimates			Projections				
	1995	1996	1997	1998	1999	2000	2001	2002
	(\$ millions)							
Memorandum Items								
Non-taxation of lottery and gambling winnings ⁴⁴	1,155	1,380	1,340	1,515	1,575	1,635	1,675	1,760
Non-taxation of specified incidental expenses	6	5	4	4	4	4	4	4
Non-taxation of allowances for diplomats and other government employees posted abroad	9	8	8	8	8	8	8	8
Child care expense deduction ⁴⁵	365	420	480	515	520	515	500	495
Attendant care expense deduction	S	S	S	S	S	S	S	S
Moving expense deduction ⁴⁶	61	64	59	60	61	62	62	62
Deduction of carrying charges incurred to earn income ¹⁷	645	590	575	600	590	590	590	590
Deduction of meals and entertainment expenses	97	130	71	74	75	75	75	75
Deduction of farm losses for part-time farmers ⁴⁷	56	57	57	57	58	58	58	58
Farm and fishing loss carry-overs	10	10	9	9	9	9	9	9
Capital loss carry-overs	89	160	180	185	185	185	185	185
Non-capital loss carry-overs	86	100	86	89	90	90	91	92
Logging tax credit	S	S	S	S	S	S	S	S
Deduction of resource-related expenditures	78	170	175	180	185	185	190	190
Reclassification of flow-through shares ^{17, 48}	n.a.	38	42	21	34	34	34	34
Deduction of other employment expenses	540	585	610	630	645	650	655	670
Deduction of union and professional dues	505	510	510	530	545	555	560	565
Employment insurance								
Employment insurance contribution credit	1,320	1,260	1,400	1,330	1,275	1,210	1,245	1,275
Non-taxation of employer-paid premiums	2,715	2,610	2,935	2,845	2,760	2,580	2,600	2,640
Canada Pension Plan (CPP) and Quebec Pension Plan (QPP)								
CPP and QPP contribution credit	1,135	1,195	1,310	1,460	1,645	1,865	2,140	2,410
Non-taxation of employer-paid premiums	1,470	1,550	1,695	1,915	2,170	2,410	2,715	3,030
Foreign tax credit ⁴⁹	280	300	335	345	350	355	365	370
Dividend gross-up and credit	730	815	895	965	1,035	1,110	1,215	1,320

Table 1
Personal income tax expenditures (cont'd)

	Estimates			Projections				
	1995	1996	1997	1998	1999	2000	2001	2002
	(\$ millions)							
Supplementary low-income credit ⁵⁰	—	—	—	140	150	—	—	—
Basic personal credit ^{12, 51}	17,650	17,885	18,250	18,145	19,145	20,445	21,180	21,810
Non-taxation of capital dividends	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Notes:

- ¹ The flow-through of CCA on Canadian films is not available for taxation years later than 1995 – it was replaced by a tax credit for producers.
- ² The 1997 budget extended this credit to most mandatory ancillary fees imposed by post-secondary institutions, beginning in 1997.
- ³ The 1996 budget increased this credit from \$80 to \$100 per month, beginning in 1996. The 1997 budget increased this credit to \$150 per month for 1997 and \$200 per month thereafter. The 1998 budget allowed part-time students to claim a part-time education amount of \$60 per month.
- ⁴ The 1996 budget increased from \$4,000 to \$5,000 the limit on the transfer of these amounts, beginning in 1996. The increase in this tax expenditure in 1997 reflects a 50-per-cent increase in the average claim in that year.
- ⁵ The 1997 budget introduced this measure, effective for 1997 and subsequent years.
- ⁶ This measure was introduced in the 1998 budget.
- ⁷ In the 1998 budget, the Government announced that it would supplement annual contributions to RESPs with a 20-per-cent grant, the Canada Education Savings Grant, beginning in 1998. While this enhancement does not represent a tax expenditure, it increases the cost of the tax expenditure to the extent that it encourages participation in the RESP program. No information is available for years prior to 1996.
- ⁸ The 2000 budget proposed to raise the exemption for scholarship, fellowship and bursary income from \$500 to \$3,000 for students eligible for the education credit. In addition, for 2000 and later tax years, the tax expenditure reflects the additional funds made available to students under the Canada Millennium Scholarships.
- ⁹ The 1998 budget replaced the \$500 tax-free allowance for volunteer firefighters with an exemption of up to \$1,000 for emergency service volunteers. The tax expenditure estimate for the emergency service volunteer exemption includes claims by firefighters after 1997.
- ¹⁰ This tax expenditure reflects only the stock option deduction and not the deferral from income inclusion. The increase in this tax expenditure in 1996 reflects a 30-per-cent increase in the number of claimants and a 30-per-cent increase in the average claim in that year. The increase in this tax expenditure in 1997 reflects a 65-per-cent increase in the number of claimants. The 2000 budget proposed to increase the stock option deduction from one-quarter to one-third.
- ¹¹ The 1999 budget increased this tax credit by \$675 for all taxpayers, beginning July 1, 1999.
- ¹² The 2000 budget proposed to fully index this tax credit effective January 1, 2000. The 2000 budget also proposed to fully index the income levels at which the middle and top tax rates begin to apply. These proposals represent a change in the benchmark tax system, and consequently, there is no tax expenditure associated with indexation.
- ¹³ The 1996 budget increased the maximum credit per dependant from \$270 to \$400.

- ¹⁴ This credit, introduced in the 1998 budget, is projected to be significantly lower than previously reported in the absence of actual taxpayer data. Last year's publication projected this tax expenditure to be \$120 million for 1998. Based on preliminary tax data, this tax expenditure is now projected to be \$30 million for 1998. The lower figure indicates a much smaller number of filers claiming a dependent relationship than had been previously anticipated.
- ¹⁵ The 1996 through 2000 budgets increased this tax benefit. Payments made between January and December of the year are reported. The 2000 budget proposed additional enhancements to the CCTB. It also proposed that the CCTB be fully indexed starting January 2000. Increases in amounts over and above indexation are scheduled for the CCTB base benefit in July 2000 and for the National Child Benefit supplement in July 2001.
- ¹⁶ The decline in this tax expenditure after 1999 reflects in part the proposal in the 2000 budget to reduce the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000.
- ¹⁷ This tax expenditure is highly volatile. It is projected at its historical average.
- ¹⁸ Data upon which this tax expenditure is estimated was available up to 1998.
- ¹⁹ The lifetime capital gains exemption for general property was eliminated after 1994. However, the tax expenditure for 1995 reflects late and adjusted elections filed in that year with respect to gains accrued up to February 22, 1994.
- ²⁰ The increase in the value of this tax expenditure for 1997 reflects a 45-per-cent increase in the amount of taxable capital gains reported in that year. Projections are based on historical trends. The 2000 budget proposed to reduce the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000.
- ²¹ This tax expenditure does not include the 2000 budget proposal for rollovers of eligible small business investments.
- ²² This tax expenditure includes the deduction of scientific research and experimental development expenditures. Data are not available to estimate this tax expenditure with precision.
- ²³ The 2000 budget proposed to amend the rules so that the \$1,000 deemed adjusted cost base and deemed proceeds of disposition for personal-use property will not apply if the property is acquired after February 27, 2000, as part of an arrangement in which the property is donated as a charitable gift.
- ²⁴ The 1998 budget allowed unincorporated owner-operators to deduct premiums for supplementary health care coverage against their business income to a maximum amount, beginning in 1998.
- ²⁵ The 2000 budget proposed to enhance the DTC by extending eligibility to individuals requiring extensive therapy, and to expand the list of relatives to whom the DTC can be transferred. The 2000 budget also proposed a supplement of up to \$500 for children eligible for the DTC.
- ²⁶ The 1997 budget broadened this credit to cover additional expenses, beginning in 1997. The 1999 budget further broadened this credit for the care and education of persons with disabilities, beginning in 1999.
- ²⁷ This measure was introduced in the 1997 budget.
- ²⁸ The projected decline in this tax expenditure after 1997 reflects changes in the 1998, 1999 and 2000 budgets to reduce tax rates on low-income individuals (e.g., the increase in the personal amounts in the 1998 and 1999 budgets).
- ²⁹ Public Accounts data used for this tax expenditure was available up to 1998.
- ³⁰ The 1996 budget eliminated the income inclusion for recipients of child support payments, and disallowed the deduction for payers, for agreements made after April 30, 1997.
- ³¹ Projected values for this tax expenditure are lower than those provided in last year's publication due to lower-than-expected interest rates in those years.
- ³² Net expenditure represents the total tax expenditure associated with this measure.

- ³³ The amounts reported in previous years for this tax expenditure included taxable amounts and did not cover all non-taxable RCMP pensions. This tax expenditure cannot be estimated with precision.
- ³⁴ Although this measure does provide tax relief for individuals, it is implemented through the corporate tax system. See under “Interest credited to life insurance policies” in the corporate income tax expenditure tables for an estimate of the value of this tax expenditure.
- ³⁵ The increase in this tax expenditure in 1997 reflects a 65-per-cent increase in the number of claims and a 10-per-cent increase in the average claim in that year.
- ³⁶ The 1996 budget reduced this credit from 20 per cent to 15 per cent and the purchase amount eligible for the credit from \$5,000 to \$3,500 per year, for purchases made after March 5, 1996. The purchase amount eligible for the credit was increased to \$5,000 in 1998, effective for 1998 and subsequent years.
- ³⁷ The decline in the value of this expenditure in 1996 reflects a 30-per-cent decline in the number of claimants and a 45-per-cent decline in the average claim in that year. The increase in the value of this expenditure for 1998 reflects a 30-per-cent increase in the number of claimants and a 25-per-cent increase in the average claim in that year. The value of this tax expenditure in 1999 is based on preliminary information of sales of shares of labour-sponsored venture capital corporations for that year.
- ³⁸ This provision was proposed in the 2000 budget.
- ³⁹ The decline in this tax expenditure in 1998 reflects a decline in the volume of home sales and in the average home value. The decline in 2000 and 2001 reflects the reduction in the capital gains inclusion rate from three-quarters to two-thirds.
- ⁴⁰ This tax expenditure includes both gifts to the Crown and donations to other charities, as they were treated equivalently in the Income Tax Act beginning in 1997.
- ⁴¹ This measure was proposed in the 2000 budget. No data are currently available.
- ⁴² This measure was introduced in the 1997 budget for a five-year experimental period and will be reviewed in 2000. The 1997 and 1998 figures are based on income tax data. Consistent with the methodology of tax expenditures, these estimates assume that the measure did not bring forth any incremental donations. They therefore do not measure the full fiscal cost of the measure. Consistent with the legislated expiration of the measure at the end of 2001, no amount is estimated for 2002.
- ⁴³ This provision was introduced in the 1999 budget, effective for qualifying retroactive lump-sum payments received after 1994. Cost estimates and projections for 1995 to 1998 reflect the costs associated with qualifying payments received in those years, even though claims were not processed before 2000.
- ⁴⁴ This estimate assumes that the total amount of lottery and horse racing winnings would be included in income and subject to tax. However, there is some uncertainty regarding the proper benchmark tax system in this area. For example, if the benchmark system included taxation of winnings, it would also have to include a deduction for the purchase cost of tickets. A threshold below which winnings would not be taxable may also be necessary, due to the large administrative cost of taxing very small prizes. In addition, proceeds from the sale of lottery tickets are an important source of funds for provincial governments and not-for-profit organizations. As a result, there is already an element of taxation to lottery and gambling proceeds. This estimate is therefore included as a memorandum item only.
- ⁴⁵ The 1996 budget broadened eligibility criteria for claiming this deduction, beginning in 1996. The 1998 budget increased the maximum claim under this provision and extended it to part-time students, beginning in 1998. The 2000 budget proposed to increase limits in respect of persons eligible for the disability tax credit.
- ⁴⁶ The 1998 budget enhanced the moving expense deduction by including certain costs of maintaining a vacant former residence (including mortgage interest and property taxes) and other miscellaneous relocation expenses.
- ⁴⁷ The 1995 and 1996 figures have been revised due to methodological changes in calculations.
- ⁴⁸ This tax expenditure applies to a subset of resource-related deductions. Data was available for 1996, 1997 and 1998 on the volume of reclassified shares, and this data was used to calculate estimates. Due to volatility, the projections for 1999 to 2002 are based on a three-year historical average.
- ⁴⁹ The expected increase in this tax expenditure is in line with the historical trend.

⁵⁰ This measure was introduced in the 1998 budget. The 1999 budget extended this measure to all taxpayers, effective July 1, 1999. The 1999 budget increased the tax expenditures associated with the basic personal credit and the spousal/equivalent-to-spouse credits and eliminated the supplementary low-income credit.

⁵¹ From 1996 to 1998, the basic personal credit was \$6,456. The 1999 budget increased the credit by \$675, effective July 1, 1999, raising its value to \$7,131. (Since this credit was implemented half way through the year, the effective basic credit in the 1999 taxation year was \$6,794, or half the proposed annual increase). The 2000 budget proposed to fully index this credit, effective January 1, 2000, raising its value to \$7,231 in the 2000 taxation year.

Table 2

Corporate income tax expenditures*

	Estimates		Projections ¹						
	1995 ²	1996	1997	1998	1999	2000	2001	2002	
(\$ millions)									
Tax Rate Reductions									
Low tax rate for small businesses ³	2,465	2,385	2,715	2,860	3,240	3,405	3,415	3,340	
Low tax rate for manufacturing and processing (M&P) ⁴	1,515	1,350	1,600	1,655	1,875	1,970	1,810	1,765	
Low tax rate on general income of small businesses ⁵	—	—	—	—	—	—	60	95	
Low tax rate for credit unions	33	42	39	39	43	44	44	43	
Exemption from branch tax for transportation, communications, banking and iron ore mining corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Exemption from tax for international banking centres	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	

Tax Credits

Investment tax credits									
Scientific research and experimental development investment tax credit	980	980	990	1,030	1,130	1,170	1,215	1,260	
Atlantic investment tax credit ⁶	87	120	175	180	125	130	135	140	
Special investment tax credit ⁷	19	—	—	—	—	—	—	—	
Investment tax credits carried back	57	87	83	86	90	93	96	100	
Investment tax credits claimed in current year but earned in prior years	855	735	810	895	985	1,085	1,190	1,310	
Political contribution tax credit	\$	\$	\$	\$	\$	\$	\$	\$	
Canadian film or video production tax credit ⁸	10	40	70	85	105	110	115	120	
Film or video production services tax credit ⁹	—	—	\$	55	57	59	60	62	

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the companion document, *Tax Expenditures: Notes to the Estimates/Projections*, for a discussion of the reasons for this.

Corporate income tax expenditures (cont'd)

[illegible]

Table 2

Corporate income tax expenditures (cont'd)

	Estimates			Projections						
	1995	1996	1997	1998	1999	2000	2001	2002		
									(\$ millions)	
Deferral of income from grain sold through cash purchase tickets	7	S	S	3	3	3	3	3		
Deferral of income from destruction of livestock	S	S	S	S	S	S	S	S		
Deferral through use of billed-basis accounting by professionals	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
International										
Non-taxation of life insurance companies' world income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Exemptions from non-resident withholding tax ¹⁶										
Copyright royalties	57	60	63	66	69	72	76	80		
Royalties for the use of, or right to use, other property ¹⁷	51	150	160	165	175	185	190	200		
Interest on deposits	445	445	470	490	500	515	535	535		
Interest on long-term corporate debt	665	665	700	730	745	770	795	795		
Dividends	52	66	80	83	94	90	93	96		
Management fees	17	18	19	19	20	21	23	24		
Exemption from Canadian income tax of income earned by non-residents from the operation of a ship or aircraft in international traffic	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Other Items										
Transfer of income tax room to provinces in respect of shared programs	695	715	860	895	1,020	1,075	1,120	1,125		
Interest credited to life insurance policies	73	75	75	79	83	87	91	96		
Non-taxation of registered charities and other non-profit organizations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Income tax exemption for provincial and municipal corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Non-taxation of certain federal Crown corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Aviation fuel excise tax rebate ¹⁸	—	—	n.a.	n.a.	n.a.	n.a.	—	—		
Surtax on the profits of tobacco manufacturers	-63	-67	-70	-70	-70	-70	-70	-70		
Resource sector tax rate ¹⁹	—	—	—	—	—	—	-33	-41		
Temporary tax on the capital of large deposit-taking institutions ²⁰	-34	-50	-52	-58	-66	-74	-83	n.a.		

Corporate income tax expenditures (cont'd)

[illegible]

Notes:

- ¹ Unless otherwise indicated in the footnotes, changes in the projections from those in last year's edition of this document result from changes in the explanatory economic variables upon which the projections are based.
- ² The 1995 figures are based on final data and may differ from the figures in last year's edition of this document, which were based on preliminary data.
- ³ The increase from 1996 to 1997 reflects an increase in the projected level of small business profits. The slight increase in 2001 and reduction in 2002 results from the change in the benchmark rate from 29.12 per cent to 28.12 per cent as of January 1, 2001. The impact of the change in the benchmark federal tax rate only partially affects estimates for taxation year 2001 since many firms will report income for this taxation year that will be partly earned in calendar year 2000.
- ⁴ The increase from 1996 to 1997 reflects an increase in the projected level of M&P profits. The decline in 2001 and 2002 results from the change in the benchmark rate from 29.12 per cent to 28.12 per cent as of January 1, 2001. The impact of the change in the benchmark federal tax rate only partially affects estimates for taxation year 2001 since many firms will report income for this taxation year that will be partly earned in calendar year 2000.
- ⁵ This measure was announced in the 2000 budget and is effective January 1, 2001.
- ⁶ The projected cost of the tax expenditure after 1998 is lower because a large portion of this tax expenditure relates to the Hibernia offshore oil project, which has completed its investment phase. No new offshore projects have been included in the projections. The tax expenditure could be higher if a project were to proceed.
- ⁷ New investments (other than those that were grandfathered) did not earn this credit after December 31, 1994. Credits not claimed in 1994 and prior years may be carried forward. However, they are included in the forecasts for investment tax credits claimed in a current year but earned in prior years.
- ⁸ Taxation year 1995 is a transition year. Some films are financed through tax shelter deductions for accelerated capital cost allowance.
- ⁹ This measure was introduced in 1997.
- ¹⁰ The increase in this tax expenditure in 1997 reflects a projected increase in capital gains. The increase in the expenditure in 2000 reflects the reduction in the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000 as proposed in the 2000 budget.
- ¹¹ Negative tax expenditures due to non-deductibility of Crown royalties and mining taxes and positive tax expenditures due to the resource allowance are highly dependent upon the level of activity in the resource industries. The large increase from 1995 to 1996 and the sharp drop in 1998 reflect volatility in international prices for crude oil and minerals.
- ¹² This tax expenditure consists of the fast write-off of certain capital assets, including capital equipment used for scientific research and experimental development, of resource exploration and development expenditures and of energy conservation and efficiency equipment. See *Tax Expenditures: Notes to the Estimates/Projections* for an explanation of why no figures have been calculated.
- ¹³ The amount of this tax expenditure can fluctuate from year to year depending upon the amount of current-year losses and the availability of income against which to apply these losses.
- ¹⁴ The amount of this tax expenditure can fluctuate significantly from year to year depending primarily upon the level of construction activity.
- ¹⁵ This measure was introduced in 1998.
- ¹⁶ These estimates and projections are based on the benchmark assumption that no behavioural response would occur after the hypothetical removal of existing withholding tax exemptions. This assumption is particularly difficult to sustain for this type of tax, as indicated in *Tax Expenditures: Notes to the Estimates/Projections*, which means that the amounts shown in the table should not be regarded as estimates and projections of the revenue gain that would be realized from the hypothetical removal of the listed withholding tax exemptions.

¹⁷ The large increase from 1995 to 1996 can be attributed to protocol changes to the Canada-U.S. tax treaty.

¹⁸ This measure is effective for the years 1997 to 2000 inclusive.

¹⁹ The resource sector tax rate is scheduled to remain at 29.12 per cent as of January 1, 2001, since this sector benefits from a number of special deductions such as the resource allowance when the allowance exceeds provincial royalties, accelerated exploration and development expenses and fast write-offs for certain capital assets. The negative tax expenditure results from a change in the benchmark federal tax rate to 28.12 per cent as of January 1, 2001.

²⁰ This measure was first introduced in the 1995 budget and extended in subsequent budgets. The measure was last extended in the 2000 budget and is scheduled to expire after October 31, 2001, pending completion of a review of the surcharge.

²¹ An additional refundable Part I tax on investment income of 6 2/3 per cent was introduced effective July 1995.

²² Estimates and projections were not previously provided for this item. The 1993 and 1994 estimates are -\$770 million and -\$790 million respectively. The Part IV tax on dividends was increased from 25 per cent to 33 1/3 per cent effective July 1995.

²³ Estimates and projections were not previously provided for this item. The 1993 and 1994 estimates are \$870 million and \$1,010 million respectively. The rate at which the refundable tax on hand is refunded was changed from \$1 for every \$4 of dividend paid to \$1 for every \$3 of dividend paid, effective July 1995.

²⁴ Net expenditure represents the total tax expenditure associated with this measure. Estimates and projections were not previously provided for this item. The 1993 and 1994 estimates are \$100 million and \$220 million respectively.

²⁵ The projected reduction in this tax expenditure in 2000 and 2001 reflects a reduction in the capital gain inclusion rate announced in the 2000 budget as well as the reduction in the benchmark tax rate effective January 1, 2001.

²⁶ The impact of loss carry-overs can fluctuate significantly from year to year depending upon the amount of current and prior years' losses and the availability of income against which to apply these losses.

²⁷ The decrease in this amount from 1995 to 1996 results from a decrease in the amount of losses of prior years being applied.

²⁸ The decrease in this amount from 1995 to 1996 results from a decrease in the amount of losses available for carry-back to reduce income of prior years.

²⁹ The increase in this amount from 1995 to 1996 results from an increase in the amount of income against which to apply losses of prior years.

³⁰ The large corporations tax rate increased to 0.225 per cent from 0.2 per cent, effective February 28, 1995. Therefore, the value of the exempt threshold was increased for taxpayers.

³¹ The cost of the Syncrude Remission Order ("Order Respecting the Remission of Income Tax for the Syncrude Project," P.C. 1976-1026, May 6, 1976 [C.R.C. 1978 Vol. VII, c. 794]) has not been estimated for this edition. The costs of this particular remission order are now published annually in the Public Accounts of Canada (ISBN 0-660-177792-7).

Table 3
GST/HST tax expenditures^{*†}

	Estimates				Projections			
	1995	1996	1997	1998	1999	2000	2001	2002
	(\$ millions)							
Zero-Rated Goods and Services								
Basic groceries ¹	2,610	2,720	2,885	2,990	3,130	3,300	3,470	3,630
Prescription drugs ¹	240	250	265	275	285	300	320	330
Medical devices ¹	70	75	80	80	85	90	95	100
Agricultural and fish products and purchases	\$	\$	\$	\$	\$	\$	\$	\$
Certain zero-rated purchases made by exporters (including those by Export Distribution Centres)	\$	\$	\$	\$	\$	\$	\$	\$
Non-taxable importations (including those by Export Distribution Centres)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Zero-rated financial services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tax-Exempt Goods and Services								
Residential rent ¹	1,190	1,240	1,310	1,360	1,420	1,495	1,575	1,650
Health care services ¹	585	610	650	680	710	750	790	825
Education services (tuition) ¹	545	570	605	630	660	695	730	760
Child care and personal services ¹	135	140	150	155	160	170	180	190
Legal aid services	30	30	30	35	40	40	40	45
Ferry, road and bridge tolls ¹	5	5	5	5	5	5	10	10
Municipal transit ¹	95	100	105	110	110	120	125	130
Exemption for small businesses	120	125	130	140	145	155	160	160
Quick method accounting	135	150	160	165	175	185	195	205
Water and basic garbage collection services ¹	150	160	170	175	185	195	200	210

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the companion document, *Tax Expenditures: Notes to the Estimates/Projections, for a discussion of the reasons for this.*

† GST/HST is used throughout the publication as the HST replaced the GST in Nova Scotia, New Brunswick, and Newfoundland and Labrador on April 1, 1997. For the purpose of this publication, the HST represents only the federal component (i.e., 7 per cent) in the participating provinces.

Table 3

	Estimates				Projections			
	1995	1996	1997	1998	1999	2000	2001	2002
	(\$ millions)							
Domestic financial services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Certain supplies made by non-profit organizations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tax Rebates								
Housing rebate ²	355	435	475	455	495	520	560	600
New residential property rebate	—	—	—	—	—	15	40	45
Rebate for book purchases made by qualifying institutions ³	—	\$	25	25	30	30	30	30
Rebate for foreign visitors on accommodation ⁴	55	65	70	75	75	80	80	80
Rebates for municipalities ⁵	480	475	495	505	505	505	505	505
Rebates for hospitals ⁵	270	260	255	260	260	260	260	260
Rebates for schools ⁵	295	290	290	295	295	295	295	295
Rebates for universities ⁵	115	105	110	110	110	110	110	110
Rebates for colleges ⁵	60	55	50	55	55	55	55	55
Rebates for charities	165	165	160	160	165	175	180	190
Rebates for non-profit organizations	50	55	45	45	45	45	50	50
Tax Credits								
Special credit for certified institutions	n.a.	n.a.	—	—	—	—	—	—
GST/HST credit	2,820	2,850	2,895	2,860	2,900	3,040	3,065	3,155
Memorandum Items								
Meals and entertainment expenses ⁶	95	100	100	100	105	110	115	120
Rebate to employees and partners	60	70	70	75	75	80	85	90
Residential and other personal-use real property	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Notes:

- 1 The Sales Tax Model used to generate these estimates and projections has been revamped and is now based on the 1996 national input-output tables from Statistics Canada and the latest release of the national income and expenditure accounts. The new statistical data has resulted, in some instances, in significant revisions to the tax expenditures. This largely reflects the update from 1990 I-O tables to the 1996 tables and the historical revision which took place in 1999.
- 2 The housing rebate is based on information provided by Statistics Canada. The rebate has been revised downward for most years largely as a result of new information on housing prices.
- 3 This measure was introduced in October 1996.
- 4 The methodology for estimating this tax expenditure was derived as part of the review of the Visitors' Rebate Program conducted during 1997 and has been updated to reflect more recent information.
- 5 Since the value of this tax expenditure is influenced by provincial budgetary decisions, projected values are simply the value estimated for 1998.
- 6 The numerical approach used to derive the tax expenditure figures is tightly integrated with the tax expenditure estimates reported for the personal and corporate tax system.

Part 2

TAX EVALUATIONS AND RESEARCH REPORTS

DEFINING TAX EXPENDITURES

I. INTRODUCTION

The principal goal of a tax system is to raise revenue in order to finance government operations and programs. As the 1997 federal budget explained: “In raising revenue, it is essential for governments to use a tax system that is fair...”¹ Governments also use a variety of tax instruments – credits, exemptions, rate reductions, deductions, deferrals, rebates and carry-overs – to achieve an array of social and economic objectives.

These deviations from a benchmark tax system, or tax concessions, are often described as tax expenditures, implying that the tax system is being used to deliver assistance that could have been provided through spending. This raises two issues. First, identifying tax concessions is not a simple exercise. Second, this approach labels all tax concessions as tax expenditures and hence as a substitute for program spending.

A simple example highlights the complexities involved in identifying tax concessions. Consider two countries, both having a statutory tax rate of 30 per cent. Suppose Country A has an additional, lower, 15-per-cent tax rate on incomes that are less than \$30,000 dollars. Now suppose that Country B, instead of the second 15-per-cent tax rate, allows a variety of tax credits, deductions and exemptions, targeted at those with incomes below \$30,000. As a result of these tax concessions, assume that Country B effectively has the same tax burden for all citizens as Country A.

Despite the two tax structures having identical taxation outcomes, the list of tax concessions for Country A will differ greatly from that of Country B. Because common practice allows the tax rate structure to be taken as part of the benchmark, Country A will have no tax concessions to report, while Country B will have a long list. This is obviously not reasonable, and becomes even more problematic if all tax concessions are simply assumed to be substitutes for program spending.

The example suggests that determining tax expenditures should be a two-step, rather than a one-step, process. The first step should determine tax concessions starting with a benchmark tax system. The second step should determine, using an appropriate set of criteria, whether the tax concession is deliverable on the spending side. If it is, then it is a tax expenditure; if it is not, then it is effectively a tax reduction. This two-step approach implies that tax expenditures are a subset of tax concessions: hence, all tax expenditures are tax concessions; not all tax concessions are tax expenditures; and tax concessions that are not tax expenditures are effectively tax reductions.

¹ Department of Finance Canada, *Budget 1997: Budget Plan*, (Ottawa: Public Works and Government Services Canada, 1997), p. 145.

Recognition that not all tax concessions are tax expenditures is evident in the tax expenditure reports of Germany, the United States and the United Kingdom.² They refer to tax expenditures as “subsidies” or “special exceptions in the tax code that serve programmatic functions”³ in their efforts to identify tax expenditures within tax concessions. Further, each of these three countries uses a form of the two-step approach to identify tax expenditures. This distinction between tax concessions and tax expenditures is pursued in this paper using an approach similar to that of Germany, the United States and the United Kingdom. It is worth emphasizing that this paper does not seek to limit the number of tax concessions that are reported, but rather to provide guidance with respect to their interpretation. Accordingly, the goals of the paper are to:

- summarize the range of issues in the literature on determining tax concessions; and
- develop criteria for determining when a tax concession should be classified as a tax expenditure.

In section II of this paper, various theoretical approaches to defining the benchmark are discussed. Section III identifies elements of the tax structure that are absolutely necessary and, as such, are considered components of the benchmark. Section IV examines the issue of specific types of tax concessions necessary to the overall structure of the tax system, and highlights those that are in place for this reason. Section V discusses the experiences of other countries in defining and reporting tax expenditures. Section VI develops possible criteria for determining which tax concessions are tax expenditures. Section VII presents a classification system for tax expenditures based on these criteria. Some concluding remarks complete the paper.

II. THE TAX CONCESSION DEBATE: WHAT IS THE BENCHMARK?

A tax concession represents a deviation from a benchmark tax system. However, there is a lack of consensus in determining the benchmark tax system. This lack of consensus has been attributed to the fact that “in a many-consumer economy, there is an indefinitely large number of efficient tax structures, no one of which has prior claim to being the best.”⁴ As a result, a variety of possible benchmarks have been developed. These benchmarks vary in their treatment of certain fundamental components such as

² Tax expenditure reports are important publications as they permit comparisons between tax expenditures and direct spending measures. The extent and nature of the uses of tax expenditure information varies among countries. Most countries use it for debating spending and taxation issues in parliamentary committees. Germany also uses the tax expenditure report to examine sectoral subsidies, while the United Kingdom uses it to reconsider the form and method of tax relief and its cost. In the United States it contributes to tax reforms. And in Belgium tax expenditure information is even an element in labour negotiations.

³ Budget of the United States Government, *Analytical Perspectives: Fiscal Year 1998* (Washington: U.S. Government Printing Office, 1997), p. 84.

⁴ Robin Boadway and Frank Flatters, “Tax Expenditures and Alternatives for Evaluating Government Activities Conducted Through the Tax System,” *Tax Expenditures and Government Policy*, ed. Neil Bruce (Kingston: John Deutsch Institute for the Study of Economic Policy, 1988), p. 80.

the tax unit, tax base and tax period. Each benchmark is unlike the others in how it defines one or more of these components and, therefore, each benchmark produces a different set of tax concessions.

The following paragraphs discuss the possible approaches to defining the benchmarks for each of the personal income tax, the corporate income tax, and the Goods and Services Tax/Harmonized Sales Tax (GST/HST). They will also illustrate how the list of tax concessions changes with each benchmark.

Personal Income Taxation

Haig-Simons Comprehensive Income Base

When the discussion of the tax expenditure concept began in the 1960s, there was some consensus that the appropriate norm for the personal income tax was the Haig-Simons (or Schanz-Haig-Simons) comprehensive income base.⁵ The Haig-Simons Comprehensive Income Base requires the taxation of real current additions to purchasing power, or real increases in wealth. Under a Haig-Simons base, all income must be included as taxable income. This means that income from all sources, including labour income, rents, dividends, interest, transfers, accrued capital gains, imputed rent, value of household services, gifts and inheritances, must be taxed uniformly. In addition, Haig-Simons allows for the deduction of expenses to earn income and requires indexation for inflation in order to measure real, not nominal, additions to wealth.

The problem with using the Haig-Simons ideal is that it is difficult to implement. Even though theory dictates that no forms of income should be tax-exempt, in practice there may exist measurement, compliance or collection issues preventing full and comprehensive income taxation. As a result, a long list of tax concessions would result. For example, measurement problems are likely to be encountered when attempting to tax the imputed value of household services. Not only would it be difficult to place values on certain types of household services, but it would also be virtually impossible to accurately measure the amount of time each individual spent doing these activities. Under the Haig-Simons base, non-taxation of household services would be considered a tax concession, the value of which would be unknown.

Even when measurement is not the issue, compliance problems may lead to an unduly long list of tax concessions. For instance, the Haig-Simons base requires the taxation of all gifts received and allows for the deduction of all gifts given. However, it is highly unlikely that gifts under a certain value will actually be reported and included in taxable income. Furthermore, even if the non-taxation of gifts were reported as a tax concession, it is unlikely that the calculated tax concessions would be very accurate as it is impossible to know the true value of lost tax revenue resulting from unreported gifts.

⁵ David E. Wildasin, "Tax Expenditures: The Personal Standard," *Tax Expenditures and Government Policy*, ed. Neil Bruce (Kingston: John Deutsch Institute for the Study of Economic Policy, 1988), p. 137.

Another practical problem with using the Haig-Simons base as the benchmark involves tax collection. For example, Haig-Simons taxation demands that capital gains be taxed on accrual, not on realization. Lost tax revenue from taxation upon realization is considered a tax concession. However, tax collection becomes a problem when taxing capital gains on accrual. The tax payable from accrued capital gains is usually measurable (with the possible exception of works of art), but taxpayers may encounter problems raising funds to pay the tax owing, as even though gains have accrued, taxpayers do not realize the gains until they sell the assets. This means that, in order to pay the tax, they may be forced to sell assets they would otherwise retain. In this case the tax would alter economic behaviour and result in an inefficient allocation of economic resources. For this reason, despite the Haig-Simons comprehensive income mandate, taxation of accrued income actually leads to problems of economic distortions. Auerbach suggests a solution for this tax collection problem whereby the tax liability could be realized only upon sale of the asset, but interest could be charged for the deferral of tax from the date of accrual of the gain.⁶ Under these conditions, tax collection is less of a problem, but the cost of tax administration – tracking gains and losses and calculating interest – is substantially higher.

Labour Income Base

An alternative income base would involve considering only labour income. Under a labour income base, unlike a comprehensive income base, income from investment and savings is exempt from taxation. Investments are made from after-tax labour income, but the returns generated by the investment are not subject to tax. This means that, under the labour income base, the present discounted values of both current and future consumption are the same. As a result, the appeal of the labour income base is that it does not distort decision making between present and future consumption.

Unlike some other approaches, a labour income base treats human capital in the same manner as other forms of capital: it considers human capital as a non-registered asset. That is, investment in human capital is made from after-tax dollars, but no tax is imposed on future gains, such as increased earnings, that result from the investment.⁷ Thus, it does not allow for the deduction of investment expenses in human capital, such as tuition fees and other educational expenses. Furthermore, it requires the taxation of potential earnings that are foregone in order to increase the value of human capital, by going to school, for example. In addition, increases in earnings attributed to the accumulation of human capital are not subject to taxation.⁸ Deviations from these rules are regarded as tax concessions. In the real world, both the taxation of foregone earnings and the non-taxation of increased earnings due to human capital investment are infeasible and

⁶ A. J. Auerbach, "Retrospective capital gains taxation," *American Economic Review* 81 (1991), pp. 167-178.

⁷ Non-registered treatment of assets is in contrast to registered treatment of assets, where a tax deduction is allowed for the initial investment but, when the asset is sold, both the initial investment and accrued gains are subject to taxation as long as they are not transferred into other registered assets.

⁸ James B. Davies and France St. Hilaire, *Reforming Capital Income Taxation in Canada: Efficiency and Distributional Effects of Alternative Options* (Ottawa: Economic Council of Canada, 1987) p. 36.

impractical. Accordingly, the resulting list of tax concessions due to the treatment of human capital as a registered, rather than non-registered, asset would be of limited use for comparison and policy purposes as the required treatment of human capital under the labour income base is impractical.

Consumption Base

Instead of using an income base for taxation, some theorists advocate the use of a consumption or expenditure base. Under a consumption base, people are taxed on what they spend rather than on what they earn, where spending is measured as the difference between income and saving. The benefit of a consumption tax base is that it does not discriminate between taxpayers that receive and spend income at different times. As a result, some argue that the consumption base may better reflect a taxpayer's ability to pay than does the Haig-Simons base.⁹

Under a consumption tax base, all assets, including owner-occupied housing, are given registered treatment. Using the example of owner-occupied housing, deductions for down payments, mortgage payments, and spending on repairs, maintenance and improvements would be allowed, and proceeds from the sale of the owner-occupied housing would be subject to taxation. Imputed rent, however, would be taxed, as it is part of consumption. In current practice, the reverse is considered the norm: no deductions are allowed and proceeds from the sale of owner-occupied housing are not subject to tax. As a benchmark, the consumption tax base may be problematic in certain cases as it has the potential to raise measurement and compliance issues when determining imputed rent and spending on maintenance and repairs.

Lifetime Consumption Base

A lifetime consumption base differs from an annual consumption base in that it allows income averaging and taxation based on lifetime consumption. The lifetime consumption base does not require taxation of imputed household services (as in the case of Haig-Simons) or registered treatment of human capital (as in the cases of both the labour income base and the Haig-Simons base). Nevertheless, several problems arise when comparing the existing tax structure to the lifetime consumption base. This base requires the taxation of gifts and inheritances, as they are deemed part of consumption. The problems this raises are similar to those found under the Haig-Simons base. Secondly, despite its theoretical appeal, in reality it is virtually impossible to impose taxes on total lifetime consumption. As a result, if the benchmark were taken to be lifetime consumption, then tax concessions would be calculated as deviations from the lifetime consumption benchmark. These calculated tax concessions would have little meaning and would not be usable for the purposes of comparison with direct spending. Compounding this problem is the difficulty involved in annualizing taxes for the purpose of comparison with actual tax collections. For these reasons, adoption of the pure lifetime consumption base may not be ideal.

⁹ Davies and St. Hilaire, *Reforming Capital Income Taxation in Canada*, p. 7.

Corporate Income Taxation

Determining the base of taxation for corporate income leads to a smaller range of options and views. There are two principal trains of thought regarding corporate income taxation.

Non-Taxation

Some theorists believe that corporate taxes may be superfluous and that only the individual should be taxed. In this case, the ideal tax base would require taxation of all sources of income at the individual level. The alternative approach is set out in the 1997 Canadian budget, which provides three reasons for business taxation.¹⁰ First, businesses benefit from public goods and services, and so businesses should pay taxes in order to compensate for “the cost of a public good or service that confers a benefit on the firms.”¹¹ Second, without a corporate tax, individuals would be able to defer paying taxes on capital gains or income by investing in a corporation and having the income or capital gains accrue within the corporation. Third, by taxing corporations, income that is earned in Canada and accrues to foreigners and foreign corporations operating in Canada can be taxed.

Haig-Simons Comprehensive Income Base

Those who favour taxing the income of the corporate sector often refer to the Haig-Simons income base as the appropriate corporate benchmark tax structure. The Haig-Simons base is the same for corporate income as for personal income in that it requires the taxation of comprehensive income with adjustments for inflation. The corporate income tax can be viewed as a tax on economic rents and on the return on equity capital. This translates into a withholding tax on shareholders' Haig-Simons income.

There are two main problems with adopting the Haig-Simons base as the ideal corporate tax base. First, Haig-Simons requires indexation for inflation so that only real gains in wealth are subject to taxation. Although this may be a desired feature of the tax base, there are serious problems implementing it because it is difficult to accurately measure real gains as opposed to nominal gains. Second, it makes no provision for the cyclical nature of business. Taxes are assessed based on real accrued gains in wealth. The Haig-Simons base indicates that losses should be subtracted from gains so that only real increases in wealth are subject to taxation. However, Haig-Simons does not address what happens if losses exceed gains and there is a net decrease in wealth. The logic of Haig-Simons implies that if losses exceeded gains, a credit would be granted for the negative income tax due. However, there is no clear indication as to whether

¹⁰ Department of Finance Canada, *Budget 1997: Tax Fairness* (Ottawa: Public Works and Government Services Canada, 1997), p. 16.

¹¹ Vijay Jog and Jack M. Mintz, “Business Tax Expenditure Accounts: Their Purpose and Measurement,” *Tax Expenditures and Government Policy*, ed. Neil Bruce (Kingston: John Deutsch Institute for the Study of Economic Policy, 1988), p. 191.

Haig-Simons would require this. Without a provision for the cyclical nature of business, carry-overs allowed in the tax system may be considered tax concessions when compared with the Haig-Simons benchmark, even though they are in place to deal fairly with corporate losses and to recognize the existence of the business cycle.

Goods and Services Tax/Harmonized Sales Tax

Consumption Base

The GST/HST is a value-added tax, broadly based on consumer goods and services. The most logical benchmark is, therefore, a consumption base. Under a consumption base, all goods and services consumed are subject to a uniform tax rate. If any good or service is either excluded from the tax or subject to a tax rate different than the statutory rate, there will be a tax concession. This benchmark allows no provisions for horizontal or vertical equity as every individual is subject to the same tax rate on all goods and services.

Summation

The examination of the theoretical arguments for the use of various tax bases and their impact on the determination of tax concessions has revealed that there is no single correct benchmark. With the exception of the GST/HST, where the use of the consumption base is clearly the most appropriate benchmark, there are plausible arguments for and against defining the benchmark in each of the aforementioned ways. As a result, none of these proposed benchmarks is ideal in its pure form. The use of any of these bases in their pure form would create tax concessions that would be of limited use for the intended function of tax expenditure reports – comparative analysis and policy examination.

The difficulty of selecting a benchmark tax structure is integral to the difficulty in defining a tax concession, since a change in the benchmark results in a change in what is classified as a tax concession. While it is generally accepted that a tax system should be efficient, equitable, simple to administer and easy to comply with, theory provides no indication as to which requirement should take precedence and no rule as to how to balance these criteria. The focus of this paper, however, is not on selecting the benchmark. The discussion of the difficulties involved in selecting a benchmark tax structure was provided to demonstrate that the intricacies of defining tax expenditures begin before the notion of a tax expenditure is even discussed. For the purposes of this paper, the benchmark tax structure is taken from *Tax Expenditures: Notes to the Estimates/Projections*.¹²

¹² Department of Finance Canada, *Tax Expenditures: Notes to the Estimates/Projections* (Ottawa: Public Works and Government Services Canada, 2000).

III. COMPONENTS OF THE BENCHMARK

This paper does not propose criteria for defining tax concessions, but rather takes the tax concessions as they have been defined in *Tax Expenditures: Notes to the Estimates/Projections*. It recognizes that there are certain elements that make up every tax system, which must be defined and understood as integral to the structure of the system. These components do not constitute tax concessions. The Canadian tax system defines these components – the tax unit, the taxation period, the tax rate structure and the treatment of inflation – as follows.

Tax Unit

While it is accepted that there must exist a definition of the tax unit, the “ideal” measurement of the tax unit is not dictated by theory. In the Canadian personal income tax system, the benchmark tax unit is defined to be the individual. An alternative to this might be to define the tax unit as the family, as is possible in the United States. The existing Canadian tax system levies taxes based on the income of an individual, even though some tax concessions depend on family income. However, if the benchmark tax unit were defined to be something other than the individual, such as the family, but in practice the unit of taxation remained the individual, then the calculated tax concessions would be of very limited use for policy purposes.

In the case of the corporate income tax system, the benchmark tax unit is the corporation. This definition of the corporate tax unit is most highly correlated to the treatment of the tax unit in the existing tax system. Even though there are occasional measures to recognize inter-corporate ties, such as the deferral of capital gains through rollover provisions, in general, taxes and tax provisions are based on the single, legal, corporate entity. If anything but the single corporation were used as the benchmark tax unit to calculate and report tax expenditures, the amounts would be of limited policy relevance and would be difficult to use for comparison purposes because the unit of taxation in practice would remain the individual corporation.

Under the GST/HST, the ideal tax unit is taken to be the consumer of goods or services in Canada, whether the consumer is an individual person, business or corporation. One of the related tax provisions, the GST/HST credit, depends on family income. In this respect it more closely resembles an expenditure program, for which qualification is generally based on family income. In the existing system, however, all other provisions deal with the consumer as defined above.

Taxation Period

The tax period is another integral part of the benchmark tax structure. In Canada, the benchmark tax period for the personal income tax and for the GST/HST is the calendar year. For the corporate income tax structure, the taxation period is the fiscal period ending in the calendar year. This is more of a convention than a rule, established for ease of accounting. It is, however, consistent with the Haig-Simons benchmark for income taxation. As noted earlier, proponents of the lifetime consumption benchmark argue that annual income does not accurately define ability to pay, as income and consumption patterns change throughout the lifetime of an individual. In their view, the taxation period should be considerably longer than a year in order to allow for income averaging.

Tax Rate Structure

It is also necessary for the benchmark to define the tax rate structure. Deviations from the benchmark rate structure would then be considered tax concessions. For the Canadian corporate income tax, the benchmark rate is defined to be the same as the current standard rate of corporate income tax, including the surtax and the provincial abatement. Any preferential rates, such as the low tax rate for manufacturing and processing and the low rate for small businesses, represent a departure from the benchmark and are considered to be tax concessions. The GST/HST also has a flat benchmark tax rate. Any deviation from the statutory rate of 7 per cent is a tax concession.

In the Canadian personal income tax system, the existing progressive tax structure, including surtaxes, is considered the benchmark tax structure. Although, in order to be consistent with the corporate income tax and the GST/HST, it would be best to use one single rate as the benchmark, if this were followed in the personal income tax, problems regarding the measurement and interpretation of other tax concessions would arise. If the benchmark rate were set at a flat rate, as it is in the corporate income tax and the GST/HST, then the progressive structure of the personal income tax system would lead to large tax concessions. Furthermore, if the benchmark tax rate diverged greatly from the existing tax rate structure, then any tax concessions would not be accurately comparable to direct spending. Inclusion of the progressive structure in the benchmark rate means that vertical equity is recognized as a key component of the personal income tax benchmark.

Treatment of Inflation

For the purposes of identifying tax concessions, the treatment of inflation plays a minimal role. In contrast, when estimating the value of tax concessions, how the benchmark treats inflation is important. For example, as Canada moves to a fully indexed personal income tax system in 2000, the value of the tax concessions associated with credits and personal amounts will automatically increase in nominal terms. In addition, a measure in the tax system requiring only two-thirds of capital gains to be included in taxable income is designed partly to help avoid taxation of purely inflationary gains. But unless the true difference between nominal and real gains is one-third of total capital gains, there will be either a positive or negative tax concession. The exact difference between nominal and real gains, however, is a measurement issue and can be dealt with when estimating the value of tax concessions.

The indexed system that is in place as of 2000 is close to the Haig-Simons benchmark, which posits that only real additions to wealth should be taxed. Thus, under that benchmark, lack of indexation would be considered a negative tax concession. In contrast, strict adherence to proportional taxation on a consumption base does not require any indexation.

IV. OTHER TAX FEATURES INCLUDED IN THE BENCHMARK

In addition to the basic components of the benchmark, there are certain other features that are elements of a fair tax system. Measures to include these features should be considered part of the benchmark and should not be considered tax concessions.

Measures to Reduce or Eliminate Double Taxation of Income

It is obvious that the same earned income should not be taxed more than once. This may, however, effectively arise if that income is taxable under two tax systems. In order to determine whether or not a tax measure helps to reduce double taxation, it is essential to examine the integration of the various tax systems. For example, the dividend gross-up and credit allow individuals to gross up dividends received from taxable Canadian corporations, include this amount in income and then claim a tax credit for a portion of the grossed-up amount. This provision recognizes that some of the taxes on dividend income have already been paid at the corporate level and that this income should not be taxed again under the personal income tax. Thus, the gross-up and credit reduce double taxation of income and increase the neutrality of the overall tax structure; therefore, they should not be considered as tax concessions. Despite attempts to reduce double taxation, under-integration may still exist. As a result, any remaining instances of double taxation of income should be considered negative tax concessions. In contrast, if the dividend gross-up and tax credit were calculated to be greater than the tax on dividends paid by the corporation, then a situation of over-integration would exist and this would be considered a tax concession.

Similar reasoning lies behind the foreign tax credit. It recognizes that income earned abroad has already borne tax and so provides a tax credit to avoid this same income being taxed again in Canada. However, if the credit were larger than the real income tax paid, then the difference would be considered a tax concession. In contrast, if the credit were smaller than the actual income tax paid, then a situation of under-integration of the tax systems would exist. In this case, the difference between the tax credit and the actual income tax paid would be considered a negative tax concession.

Loss Carry-Overs

Loss carry-overs recognize the cyclical nature of business and acknowledge that losses suffered in one period may be offset by gains in another. Income in one year may not be an accurate indicator of ability to pay taxes due to substantial losses in a previous year. Consequently, carry-overs allow losses to be applied to past or future income in order for individuals, businesses and corporations to smooth income to a certain degree over the business cycle. In Canada, tax provisions that recognize the impact of business cycles on income include the carry-over of non-capital losses, the carry-over of net capital losses, and the carry-over of farm losses and restricted farm losses.

Deduction of Expenses to Earn Income

In general, businesses act to maximize profits, where profits are defined to be revenue less the costs of generating that revenue. It is generally accepted that taxes should be assessed on income net of expenses incurred to earn income, rather than gross income.

Under both the personal and corporate income tax systems, legitimate expenses incurred to earn income are deductible from gross income in order to determine the appropriate base of income taxation. Nevertheless, the definition of legitimate expenses in the personal income tax is subjective and, in some cases, controversial. Certain expenses such as child care expenses, attendant care expenses, and meals and entertainment expenses are viewed by some as legitimate costs of doing business, but are seen by others as spending resulting from personal choices. Consequently, the classification of certain expenses as tax provisions essential to the benchmark tax structure is not absolute and indisputable.

V. TAX EXPENDITURES: COUNTRY EXPERIENCES

An examination of tax expenditure reports across countries shows that their structure, costing and contents differ widely, revealing the absence of a universally accepted definition of what constitutes a tax expenditure. In Canada, the current reporting of tax expenditures is very broad, covering any tax concession that is not considered one of “the most fundamental structural elements of each tax system” and implying a very wide definition of tax expenditures.¹³ In addition, if there is any doubt as to whether or not a tax concession fits this definition, revenue losses resulting from the reduction are still reported, but under a category entitled “memorandum items.” Not every country produces as comprehensive a list of tax concessions as Canada does. In order to determine the definition of a tax expenditure in Canada, it may be useful to consider the definitions of tax expenditures currently in use in other countries.

The United Kingdom attempts to divide tax reliefs into two categories. Those reliefs that are alternatives to, and have similar consequences as, public spending are referred to as tax expenditures. Those forms of tax relief that are either an integral part of the tax structure or simplify administration or compliance are called structural reliefs. Structural reliefs include measures such as the personal allowance and double taxation relief. Tax expenditures include measures such as the exemption of capital gains on the sale of a principal residence and the exemption of the first £8000 of reimbursed relocation packages provided by employers. However, the government acknowledges that “the distinction between structural reliefs and tax expenditures is not always straightforward,”¹⁴ and include a third category of tax reliefs, which consists of tax concessions that combine elements of both the structural and expenditure categories. Into this somewhat open-ended category, they put tax concessions such as age-related allowances and the tax exemptions for child benefits and disability living allowances.

France defines a tax expenditure as a tax measure that results in a loss of tax revenue for the state and a corresponding easing of the tax burden on the taxpayer that would not have occurred under the application of general tax law. Nevertheless, additional criteria including duration, general applicability and neutrality are also used to define tax expenditures in cases of uncertainty. Cases of uncertainty, however, are rare.

¹³ Department of Finance Canada, *Tax Expenditures*, 1999, p. 33.

¹⁴ OECD, *Tax Expenditures: Recent Experiences* (Paris: Head Publication Services OECD, 1996), p. 98.

Unlike France, Germany does not have a formal definition of tax expenditures. It examines every tax concession within the context of the tax system as a whole to determine whether or not it is a subsidy. Consideration is also given to the scope of the tax measure: "The larger the circle of taxpayers which benefits from a tax concession, the less it tends to be considered a subsidy in the report."¹⁵ In addition, Germany uses consistency as a criterion for identifying tax expenditures. The issue here is whether a tax measure is applied consistently or in an ad hoc manner. Those provisions that are considered ad hoc are classified as tax expenditures.

With consistency as the only criterion, however, even if a tax concession brings the tax system closer to the benchmark tax structure, it could still be considered a tax expenditure. Bruce¹⁶ cites the example of the (now defunct) Canadian investment income deduction as an ad hoc response to a flaw in the existing tax structure in that, without the deduction, increases in investment income due only to inflation would have been taxed. In this case, an ad hoc provision actually moves the system closer to the Haig-Simons ideal, but under the German classification system it would be considered a tax expenditure. Bruce therefore concludes that "consistency is not a sufficient condition" for determining whether or not a tax concession is a tax expenditure; the tax concession must also accord with the norm.¹⁷

Germany also states the official reason for the tax concession. After determining the list of tax expenditures, it classifies them by sector and then further classifies them by the aim of the tax measure. By denoting the purpose of the tax measure as one of support, adjustment aid, productivity aid or other purpose, Germany attempts to ascertain the amount of government financial support given to each objective.

Although according to the United States Senate Committee on the Budget, tax expenditures "may, in effect, be viewed as spending programs channelled through the tax system,"¹⁸ the U.S. definition of tax expenditures is somewhat unique among Organisation for Economic Co-operation and Development (OECD) countries. Unlike other OECD countries, the United States uses two different tax structures to report two sets of tax expenditures: the normal tax structure and reference law. Tax expenditures under the normal tax structure are similar, but not identical, to those reported in Canada. They include any deviation from the basic structure of the tax system, where the basic structure includes both a standard deduction and deductions for expenses to earn income, and is not limited to a specific rate structure or unit of taxation. The normal tax base,

¹⁵ OECD, *Tax Expenditures: Recent Experiences*, p. 66.

¹⁶ Neil Bruce, "Pathways to Tax Expenditures: A Survey of Conceptual Issues and Controversies," *Tax Expenditures and Government Policy*, ed. Neil Bruce (Kingston: John Deutsch Institute for the Study of Economic Policy, 1988), p. 29.

¹⁷ Ibid.

¹⁸ Congressional Research Service, *Tax Expenditures: Compendium of Background Material on Individual Provisions*, prepared for the Committee on the Budget, United States Senate (Washington: U.S. Government Printing Office, 1997), p. 2.

however, strays from a Haig-Simons comprehensive income base as it allows for the following: income being taxable when realized rather than on an accrual basis, corporate income being taxed separately from individual income, and the tax system being based on nominal values, i.e., there is no adjustment for inflation.

Tax expenditures under reference law are more limited. They more closely reflect the existing tax laws and consist only of “special exceptions in the tax code that serve programmatic functions.”¹⁹ In order for a tax concession to be classified as a tax expenditure under reference law, two conditions must be satisfied. First, “absent the special provision, the tax laws provided general rules to enable a taxpayer to determine his income tax due and payable,” where the general rules constitute the reference law.²⁰ That is, the tax concession must not be necessary for the calculation of tax payable. Second, the tax concession must apply “to a sufficiently narrow class of transactions or transactors” such that its objectives could be realized through program spending using government funds.²¹

The reference law baseline differs from the normal baseline in several ways. Reference law recognizes as part of the baseline the varying tax rates within the corporate tax structure. Thus, the maximum statutory tax rate is not recognized as the benchmark, as it is under the normal baseline. As a result, preferential tax rates applied both to the first \$10 million of corporate income and to capital gains are not considered tax expenditures under reference law. Reference law also does not include in its benchmark the taxation of transfer payments from the government to individuals. Exclusion of these cash transfers from income, therefore, does not result in tax expenditures under reference law. In general, tax expenditures under the reference law baseline are also tax expenditures under the normal tax base line, but the reverse is not always true. Examples of tax concessions considered tax expenditures under the normal tax base line but not under the reference law baseline include accelerated depreciation on rental housing, buildings other than rental housing, and equipment and machinery; and exclusion of scholarship and fellowship income.

The United Kingdom, France, Germany and the United States all maintain the common goal of establishing a more accurate definition of a tax expenditure. The actual definitions developed by each country vary considerably. The United Kingdom and Germany, however, introduce an interesting method of determining tax expenditures: examining each tax concession to ascertain whether it is an alternative to public spending or a subsidy. This idea of defining a tax expenditure as an alternative to public spending or as a subsidy indicates that, in order for a tax concession to be a tax expenditure, the concept of deliverability must be examined.

¹⁹ Budget of the United States Government, *Analytical Perspectives: Fiscal Year 1998* (Washington: U.S. Government Printing Office, 1997), p. 84.

²⁰ OECD, *Tax Expenditures: Recent Experiences*, p. 108.

²¹ OECD, *Tax Expenditures: Recent Experiences*, p. 108.

VI. DEVELOPING THE CRITERIA FOR DEFINING TAX EXPENDITURES

In determining the criteria for defining tax expenditures, both theory and practice provide useful insights. In Surrey's definition, tax expenditures are "governmental financial assistance programs...carried out through special tax provisions rather than direct Government expenditures."²² Together with the United Kingdom definition of tax expenditures as alternatives to public spending and the German definition of tax expenditures as subsidies, this means that tax expenditures are direct spending programs delivered through the tax system.²³ A reasonable criterion is that a tax concession should be considered a tax expenditure if it can be delivered equivalently through program spending. "Delivered equivalently" means that a tax concession be delivered outside the tax system without altering program or administrative costs or modifying the distribution of benefits. If a tax concession cannot be delivered equivalently it is not a tax expenditure, but rather a tax reduction.

Distribution of Benefits

The most difficult aspect of "equivalent deliverability outside the tax system" ("deliverability" for short) to satisfy is retention of the same distribution of benefits. Conceptually, the distribution of benefits can be exactly the same only in the case of refundable tax credits. Under both the corporate and personal income tax systems, in theory, non-refundable tax credits may be deliverable outside the tax system because they do not affect the calculation of taxable income. For example, if the same people who claimed a non-refundable credit under the tax system were instead to receive the benefit under a spending program, then the distribution of benefits would be the same under both systems. Because the credit is non-refundable, however, it is only valuable to those with positive taxable income. Consequently, if an individual's total non-refundable tax credits exceed total taxes payable, then some credits will not be used up. An individual who qualifies for a credit, but cannot claim the full credit due to insufficient taxable income, does not receive the benefit.

For example, suppose Individual A claims the basic personal credit in the amount of \$1,229.27 (17 per cent of \$7,231). However, Individual A's calculated income tax owing is only \$1,000. Because the credit is non-refundable, Individual A can claim only \$1,000 of the credit. The remaining \$229.27 cannot be claimed due to insufficient levels of taxable income and income tax payable. As a result, Individual A will not receive the full benefit of the tax credit.

If this basic personal tax credit were replaced by a direct spending program that retained the same distribution of benefits, Individual A would still only be able to receive partial benefits. However, a different taxpayer, Individual B, with income tax payable in the amount of \$2,000 would be able to claim the credit in its entirety. To match this distribution using direct spending would involve designing a program that provided low

²² Stanley Surrey, *Pathways to Tax Reform* (Cambridge, Mass.: Harvard University Press, 1973), p. 6.

²³ Budget of the United States Government, *Analytical Perspectives*, p. 84.

or zero benefits to lower-income recipients and higher benefits to higher-income recipients. This type of program is unlikely to be acceptable in practice for vertical equity reasons.

If, instead, the spending program granted Individual A full benefits of \$1,229.27, then clearly the distribution of benefits would change. Not only would Individual A, who received only partial benefits under the tax benefit, now receive full benefits under the spending program, but so would other individuals who previously received zero benefits under the tax concession. Adopting this approach to direct delivery would result in a program whose benefits would be like those of a refundable tax credit. That is, more people would qualify for this benefit. Consequently, for some tax concessions like non-refundable credits and deductions, the distribution of benefits may change, making those tax concessions only potentially deliverable outside the tax system.

Program Cost

For many tax concessions there are conceivable replacement spending programs which provide the same total benefit to the overall population. This allows program costs to remain constant. However, program costs are highly dependent on the distribution of benefits. If the primary goal is to retain the same program costs, then it is likely that the distribution of benefits will change and, consequently, the original objectives of the tax concession will not be achieved. Only if the same individuals receive the same benefits will the objectives be achieved at the same program cost. As shown above, if the distribution of benefits changes, it is most likely that more people will qualify for the benefit under the spending program than through the tax concession. Thus, if the distribution of benefits changes, then the original objectives of the tax concession will only be achieved at a higher program cost.

Some tax credits are deliverable outside the tax system as the program costs are almost identical and the distribution of benefits is likely to be the same. For instance, the tuition fee credit, accompanied by its infinite carry-forward, can be viewed as almost equivalent to program spending. Although it is non-refundable, the credit can be carried forward indefinitely to offset future taxable income. Only if the qualifying individual never has taxable income will the benefit from the credit not be realized.

Despite the carry-forward, the tuition credit is not fully, but “almost fully” deliverable outside the tax system. If the tuition credit were delivered outside the tax system, the benefits would be realized in the same year that the tuition was paid. However, for an individual that did not use up the tuition credit in the tax system due to insufficient income, but carried it forward one or more years, the value of the credit would not be identical to the value of a credit claimed in the year that tuition costs were incurred. The value of the credit claimed in future years would have to be discounted to the present value and would be less than the value of a credit claimed in the year the costs were incurred. In this case, the program costs of delivering a tuition benefit would be slightly higher than the costs of the tuition credit in the tax system. As the difference in benefit levels and program costs between the two delivery methods is very small, the tuition credit combined with the carry-forward provision can be considered deliverable outside the tax system. This argument applies to all non-refundable credits with a carry-over provision.

However, delivery of a tax concession through direct spending cannot always be achieved at the same or even similar program cost. Direct delivery of concessions such as the spousal credit, equivalent-to-spouse credit, dependant credit, age credit and basic personal credit would likely result in increased program costs or, if the distribution of benefits is considered, a change in the distribution of benefits. Because these tax concessions are all non-refundable credits without a carry-over provision, they are wasteable credits. That is, if the credit is not claimed in full in the year it is earned, then the full benefit from the credit will never be realized. In order for program costs to remain the same under direct delivery, it is likely that the administration costs of determining the exact benefit for each individual would be prohibitive.

Administration Cost

For a tax concession to be fully deliverable outside the tax system, it needs to have similar administration costs. In some cases, such as the refundable Canada Child Tax Benefit, the administration costs will be similar, as the tax concession could be converted into a program, and delivered as it is currently, in the form of a cheque.

However, some tax concessions could undergo very substantial increases in administration costs if they were removed from the tax system and delivered directly. For example, a spending program cannot deliver the provision for non-taxation of capital gains on principal residences without very significant increases in administration costs. The recipients of the benefit change from year to year and the amount of the tax benefit depends on the marginal tax rates faced by the taxpayer. Because the value of the benefit varies from taxpayer to taxpayer depending on their position in the tax rate structure, large expenses would have to be incurred in order to determine both the qualifying individuals and the value of the benefit to each individual.

In general, in the personal income tax system, the administration costs of delivering deductions and exemptions as direct spending would be very substantial. The purpose of both deductions and exemptions in the tax system is to “arrive at an accurate assessment of income, i.e., to determine the proper tax base for a taxpayer.”²⁴ Deductions and exemptions reduce gross income to taxable income and, therefore, apply and have value only to those with positive gross income. However, due to the progressive nature of the personal income tax system, the value of a deduction or exemption varies according to the individual’s marginal tax bracket. The value of a deduction or exemption is highest for those in the top marginal tax bracket and falls to zero for those who do not pay any taxes.

For example, the provision for non-taxation of employer-paid insurance benefits for group private health and dental plans exempts the employee from paying tax on these benefits. The exemption is considered undeliverable because of the very fact that it is used to determine taxable income, and hence, the value would vary across individual employees according to their marginal tax brackets. As a result, it would be virtually impossible to duplicate the benefits from this tax concession in a spending program.

²⁴ Wildasin, “Tax Expenditures: The Personal Standard,” p. 155.

Consequently, deductions and exemptions in the personal income tax system are considered infeasible for delivery outside the tax system because of overwhelming administration costs.

Unlike the personal income tax system, the corporate income tax system and the GST do not contain progressive tax structures. As a result, deductions and exemptions have the same value to all who qualify for them and the administration costs of delivering them outside the tax system would not be prohibitive.

VII. CLASSIFICATION SYSTEM

Each tax concession can be assessed based on the above criteria to determine how deliverable it is outside the tax system. Because of the variability in types of tax concessions and the limited ability of theory to direct their classification, it is not possible to consider each tax concession as simply deliverable or non-deliverable. Consequently, it will not be possible to classify each tax concession into just two categories, those being tax expenditures and other tax concessions. Due to varying levels of deliverability, there are some uncertain cases that require individual determination. As a result, the system of classification that emerges from this set of deliverability criteria consists of four levels, but with a degree of uncertainty about the appropriate classification of some provisions.

Type I Tax Expenditures

The first classification level comprises those tax concessions that are closest to direct expenditures. They are broadly deliverable outside the tax system as their delivery through direct spending leads to no significant alteration in the distribution of benefits and no substantial changes in program and administration costs. In general, Type I tax expenditures consist of refundable tax credits and rebates, as qualification for these tax provisions and their delivery through direct spending would remain the same as their delivery through the tax system.

Type II Tax Expenditures

Type II tax expenditures are tax concessions that are deliverable outside the tax system with a similar distribution of benefits and program costs. Direct delivery of these tax concessions will, however, result in measurable increases in administration costs. In general, Type II tax expenditures comprise non-refundable tax credits with a carry-over and/or transferability. In addition, because of the single tax rate in the corporate tax system, Type II tax expenditures also include many exemptions and deductions in the corporate tax structure. Under the GST/HST, Type II tax expenditures comprise most zero-rated goods and services.

Type III Tax Expenditures

These tax concessions, if delivered through direct spending rather than the tax system, would significantly increase both administration costs and program costs and would substantially change the distribution of benefits. In general, Type III tax expenditures

include non-refundable tax credits that have no provision for transferability or carry-over, and therefore might not be claimed in full. In the case of the GST/HST, type III tax expenditures consist of the tax-exempt goods and services which, if delivered directly, would alter the distribution of benefits and increase program costs.

Tax Reductions

Tax reductions are those tax concessions that simply cannot be delivered outside the tax system without incurring substantial and prohibitive increases in administrative costs as well as changes in the distribution of benefits and program costs. Not only would the distribution of benefits and program costs change, as in the case of Type III tax expenditures, but the value of these tax reductions would vary depending on the marginal tax bracket faced by the individual. In general, the tax reduction category comprises deductions, deferrals and exemptions in the personal income tax system. In the corporate income tax system, tax reductions consist of deferrals. Deferrals often have variable lengths, and thus the benefit of the deferral may vary from corporation to corporation.

Part of the Benchmark

This category consists of those tax concessions which were identified earlier in this paper as essential components of the tax system, because they reduced double taxation, ensured the correct measurement of income or dealt with business losses. Because these reductions are essential elements of the tax system, the deliverability criteria do not apply to them.

VIII. CONCLUDING REMARKS

This paper highlights the fact that the definition of a tax expenditure is not absolutely precise and that a universally accepted definition does not exist. For this reason, the tax expenditure report provides as comprehensive a set of information as possible. This avoids getting into a controversy about whether an item is a tax expenditure or not. Analysts have found this approach useful.

While some analysts define a tax expenditure as being any deviation from a benchmark tax structure, this paper shows that a deviation from a benchmark can either be a tax reduction or program spending delivered through the tax system. This suggests the need for a two-step approach to defining tax expenditures. The first step requires the identification of tax concessions – deviations from the benchmark tax structure. The second step involves determining which tax concessions are tax expenditures

The analysis clarifies an approach to classifying tax expenditures with the goal of helping readers to analyze the information currently provided in the tax expenditure report. This approach could also be used to change how information on tax expenditures is presented. Comments are invited as to whether such a reclassification would be useful, bearing in mind that the same amount of information on deviations from the benchmark will continue to be provided.

THE ALTERNATIVE MINIMUM TAX

I. INTRODUCTION

In response to criticisms that there were too many high-income individuals paying little or no taxes, the Government announced in the May 1985 budget its intention to introduce a minimum tax that would take effect on January 1, 1986. The purpose of the alternative minimum tax (AMT), as it became known, was to achieve a fairer tax system by reducing the extent to which high-income filers paid little or no income tax. This was to be accomplished by ensuring that high-income individuals were not able to systematically use tax preferences to substantially reduce or eliminate taxes payable. This paper examines the extent to which the AMT has achieved its objective for the period between January 1, 1986 and December 31, 1997.

II. BACKGROUND

What is the AMT?

The AMT is targeted towards individuals with high incomes who are able to use tax preferences to substantially reduce or eliminate their taxes in a given year.¹ In general, the AMT increases the tax filer's taxable income by disallowing various tax preferences. In place of these preferences, a \$40,000 exemption is granted. The net taxable income is then taxed at a 17-per-cent rate to arrive at the minimum amount of tax that must be paid. The tax filer must pay the greater of the minimum amount and the amount of regular taxes that would be paid in the absence of the AMT. The minimum amount over and above the regular taxes paid can be carried over and used to reduce regular taxes payable to a level no lower than the minimum amount payable in a subsequent year. Example 1 briefly illustrates how the AMT works. This example, and all subsequent examples, are based on the 1997 tax system.

EXAMPLE 1 – How the AMT Works		
	Regular Tax	AMT
	(\$)	(\$)
Total Income	250,000	250,000
Deductions	125,000	
Taxable Income	125,000	250,000
AMT Exemption		40,000
Net Taxable Income	125,000	210,000
Tax on Income	31,812	35,700
AMT Carry Forward		3,888

Review of the 1985 Discussion Paper

The Government released a discussion paper² with the May 1985 budget for consultation before implementing a minimum tax. The paper reviewed the extent to which high-income individuals paid little or no income tax during the 1970s and early 1980s, examined the reasons why this occurred and set out the general framework for how a minimum tax should operate.

¹ The AMT also applies to most trusts. It is not applicable to individuals who are bankrupt or deceased.

² Department of Finance Canada, *A Minimum Tax for Canada*, budget papers (Ottawa: Public Works and Government Services, 1985).

The paper observed that only a small percentage of tax filers had high incomes and paid little or no taxes. Furthermore, few high-income individuals managed to pay no taxes for more than a year (none for more than six consecutive years). The paper also noted that the dividend tax credit was a major reason for high-income individuals not paying income tax. Other reasons included deductions for carrying charges in excess of investment income, the partial taxation of capital gains and deductions for business losses claimed on their tax returns. Social policy items such as registered retirement savings plan (RRSP) deductions were found to be of secondary importance when compared to investment items.

The paper reviewed three possible forms that a minimum tax could take: an AMT, an add-on minimum tax and a limit on tax preferences.³ The AMT was eventually chosen since it was more easily targeted towards high-income earners who pay little tax and did not interfere with tax calculations for the rest of the population. The remainder of this section reviews some of the arguments made in the discussion paper regarding the appropriate structure of an AMT.

Exemption Level

While the choice of the exemption level was somewhat arbitrary, it had to be high enough to exempt the majority of taxpayers who had low incomes and/or few preference items, but low enough to catch high-income individuals who used preferences to offset large amounts of their income.

AMT Tax Rate

Like the exemption level, the rate had to be “high enough to ensure that substantial levels of income did not go untaxed, while low enough to recognize that a low regular tax liability may be the result of legitimate incentives.”⁴ The paper argued that the AMT rate should not exceed 17 per cent, which was equal to one-half the top marginal rate at the time. The reason given was that this was equivalent to the top rate on capital gains, which had a 50-per-cent exclusion rate at the time. Presently, the AMT rate is equal to the statutory rate for the lowest tax bracket and the rate used for most non-refundable credits.

Choice of Preference Items

The discussion paper laid out two criteria in choosing preferences that would be included in the AMT base. The first was the degree to which a preference was seen to create a potentially inappropriate or excessive tax preference. The second was the complexity and administrative effort associated with capturing any preference for the AMT base. The preferences that were chosen are discussed in detail in the next section.

³ An AMT has a separate structure from the regular tax system in which various preferences are disallowed. An add-on minimum tax is based on the use of a specified list of preferences, and the amount of tax is simply added to regular taxes payable. A limit on tax preferences means that preferences are limited directly within the regular tax system. For more information see the 1985 discussion paper.

⁴ Department of Finance Canada, *A Minimum Tax for Canada*, p. 19.

The AMT in Practice

How the AMT Is Calculated

In general, the AMT disallows preferences that can be used to generate losses that offset other sources of income.⁵ When calculating adjusted taxable income for AMT purposes, the amounts claimed for these preferences are added to regular taxable income. These preferences include the following:

- losses due to claiming capital cost allowance (CCA) or carrying charges⁶ on investments in film or rental or leasing property;⁷
- losses from limited partnerships or tax shelter partnerships;
- deductible amounts with respect to registered tax shelter properties that are not included in the AMT base elsewhere; and
- losses due to resource expenditures, depletion allowances and carrying charges related to resource properties and flow-through shares.

When claiming a loss from previous years, any portion of that loss due to any of the preferences mentioned above must also be added to taxable income under the AMT.

The AMT also adds the non-taxable portion of capital gains⁸ to the taxfiler's income.⁹ In addition, two other deductions are disallowed by the AMT: the deduction for home relocation loans and the stock option and shares deduction.¹⁰

Dividends are included in the adjusted taxable income at their cash value, and no dividend tax credit is given.¹¹ In addition, allowable business investment losses are 100-per-cent deductible under the AMT rather than 75-per-cent deductible. This provides symmetric treatment of capital gains and business investment losses.

⁵ A complete list of preferences and whether or not they are included in the AMT base is presented in Appendix 2.

⁶ Carrying charges are interest expenses and other expenses related to purchasing investments, such as investment advice and management fees. Interest on investments for which the return can only take the form of a capital gain cannot be claimed.

⁷ CCA losses from multiple-unit residential buildings were also disallowed when these losses could be used to offset other sources of income. This tax shelter has now been closed.

⁸ However, it does not include tax-exempt capital dividends in adjusted taxable income. Capital dividends are the non-taxable portion of capital gains realized at the corporate level that are transferred to shareholders.

⁹ Other tax-exempt income, such as the first \$3,000 of scholarship income, is not added to the AMT base.

¹⁰ This deduction allows the benefits from employee stock options to be taxed at a preferential rate. The deduction for prospectors and grubstakers, which is reported on the same line on individuals' tax returns, is also disallowed by the AMT.

¹¹ There is little chance for double taxation of dividends, since removal of the dividend tax credit by itself will not cause an individual to pay minimum tax. See the section entitled "Dividends, Capital Gains and the AMT" for further discussion of this matter.

Most non-refundable tax credits (including charitable contributions and personal and spousal credits) can be used to decrease the minimum amount of tax.¹² Two exceptions are credits that were transferred from a spouse or dependant (e.g., tuition fee credit) and the credit for pension income, which are disallowed for minimum tax purposes. The minimum amount net of the non-refundable credits is compared to the individual's regular basic federal tax. If the minimum amount exceeds the basic federal tax, then the individual must pay the AMT.

In addition, the AMT disallows some other tax credits that are used to decrease regular tax payable: the political contribution tax credit, the investment tax credit, the labour-sponsored venture capital corporations credit, the logging tax credit and the overseas employment tax credit.¹³ However, an adjusted foreign tax credit can be used to decrease the amount of minimum tax.

The Carry-Over Provision

Any minimum tax over and above regular taxes can be carried over for up to seven years to be used as a credit against future regular taxes. The carry-over can only reduce regular taxes to the minimum amount of tax in future years. This has the effect of reducing the cost of the AMT to the taxpayer. The carry-over is there to ensure that tax incentives put in place for valid economic and social reasons are not undermined by the AMT. It ensures that taxpayers "will be able, in effect, to apply unused deductions and tax credits against their regular tax liability in future years, but in each and every year will never pay less than the minimum tax."¹⁴

Changes to the AMT Base

While the rate and exemption level have not changed since 1986, there have been some changes to the preferences included in the AMT. First, beginning with the 1995 tax year, the AMT tax base was broadened with the addition of losses due to carrying charges on certain investments. Second, the 1998 budget included a measure to remove RRSP contributions and rollovers from the AMT tax base, retroactive to 1994. The latter change was made because many individuals were receiving large severance packages that were being rolled over into RRSPs during the economic restructuring of the 1990s. The large RRSP contributions triggered the AMT. Since retirement savings were important to Canadians, and given the limitations on RRSP contributions already in place, the Government decided that it would be appropriate to remove this preference from the AMT base.

¹² Since the basic personal credit and other non-refundable credits are credited at a 17-per-cent rate, this effectively raises the amount of income that is not taxed under the AMT to at least \$46,456 in 1997.

¹³ The refundable portion of the investment tax credit is allowed for AMT purposes.

¹⁴ Department of Finance Canada, "Minister Announces Minimum Tax," Press Release 85-215, December 4, 1985.

Changes Made to Some Preferences Targeted by the AMT

The Government has been actively eliminating or limiting the use of various preferences targeted by the AMT. Nevertheless, these preferences are still included in the AMT base since there may be losses carried over from previous years. For example, the 100-per-cent CCA provisions on certified films was eliminated in the 1995 budget and replaced with a tax credit for producers. One of the reasons cited in the budget was that the CCA measures were simply tax shelters used by high-income individuals.

In addition, the tax shelter on multiple-unit residential buildings has been eliminated. Before the changes, CCA on these properties created losses that could have been used to offset other forms of income. This provision has now been changed and CCA can only be deducted up to the amount of net income from the property.

Minimum Taxes in Other Jurisdictions

In Canada the province of Quebec has a minimum tax that is similar to the federal AMT. Internationally, only the United States has a minimum tax similar to the one used in Canada. A number of countries have minimum taxes for corporations (such as a minimum tax on assets) but not for individuals. Some countries in Europe have wealth taxes, some of which are tied to the amount of income tax paid. These taxes can be interpreted as a form of minimum taxation. Norway has a national income tax on gross income for which no deductions are provided which affects only high-income individuals. However, this tax does not apply to capital income.¹⁵ In Germany, limits on the set-off of losses result in a form of minimum taxation for individuals with positive incomes over DM 100,000.¹⁶ A brief discussion of minimum tax measures in other countries can be found in Larin and Jacques.¹⁷ An overview of the Quebec and U.S. versions of the AMT is provided below.

The Quebec AMT

The Quebec AMT was introduced at the same time as the federal AMT and it operates in a similar manner to the federal version.¹⁸ It also targets the same preferences.¹⁹ In Quebec the AMT rate was initially 16 per cent, but was raised to 20 per cent in 1993 and to the current rate of 23 per cent in 1998, which is the rate used for non-refundable

¹⁵ International Bureau of Fiscal Documentation, *European Taxation Supplementary Service*, 1999, loose-leaf.

¹⁶ Ibid.

¹⁷ Gilles N. Larin and Marie N. Jacques, "Is the Alternative Minimum Tax a Paper Tiger?," *Canadian Tax Journal*, 42(3) (1994), pp. 804-842.

¹⁸ Note that while other provinces do not have their own AMT, the federal version still applies.

¹⁹ The Quebec AMT also disallows some preferences related only to investments in Quebec. Its treatment of allowable business investment losses is similar to the federal AMT.

tax credits. Quebec also reduced the basic exemption from \$40,000 to \$25,000 in 1996 as a means of increasing revenue and fairness in the tax system. The Quebec government also excluded RRSPs from its AMT base beginning with the 1997 tax year.

The U.S. AMT

The United States has had a minimum tax since 1969. The tax was implemented for the same policy reasons as in Canada. The U.S. originally used an add-on minimum tax but eventually switched to an AMT. The U.S. has a minimum tax for both individuals and corporations.²⁰ The basic method for calculating the AMT is the same as in Canada. Approximately 700,000 U.S. taxpayers paid \$4.5 billion in AMT in 1997.²¹

While the American system is similar to the Canadian one, there are two important differences. First, the Canadian system's non-refundable tax credits (such as the basic personal credit) are separate from the \$40,000 AMT deduction. In the U.S. system, the personal exemption is treated as an AMT preference and is added back into taxable income. Second, the Canadian AMT deduction is not phased out at higher incomes. Therefore, the American AMT appears to be stricter than its Canadian counterpart.

There has been a great deal of criticism in the United States regarding the AMT, especially the tax on corporations. Most of this criticism concerns the complexity of the tax and the additional compliance costs (e.g., companies have to calculate depreciation two different ways).

III. OVERALL IMPACT OF THE AMT

The 1985 press release announcing the AMT stated that the minimum tax "ensures that high-income Canadians will pay a fair share of taxes in each year."²² This section examines the performance of the AMT for the period 1988 to 1997 to determine if it is working as intended. Since the removal of the RRSP deduction from the AMT base was done on a retroactive basis, the tax return data for those years do not take these changes into account. Nevertheless, through the use of the Personal Income Tax T1 model, some of the effects of removing the RRSP deduction from the base have been determined and they will be noted where appropriate. However, it was not possible to determine the effects on the carry-over amounts of individual filers.

²⁰ While Canada does not have a corporate AMT per se, some tax analysts consider the large corporations tax to be like a minimum tax.

²¹ Robert P. Harvey and Jerry Tempalski, "The Individual AMT: Why It Matters," *National Tax Journal*, L(3) (September 1997), pp. 453-473.

²² Department of Finance Canada, "Minister Announces Minimum Tax."

Revenue and Number of Filers Affected

Before RRSPs Were Removed

Table 3-1 presents the number of filers and the amount of additional revenue collected by the Government from the AMT. Generally, fewer than 30,000 filers paid additional tax as a result of the AMT each year from 1988 to 1997 with revenue well below \$100 million per year between 1989 and 1992. The increase in AMT revenue between 1992 and 1993 is mainly due to the increase in the number of filers paying AMT because of increased use of rollovers into RRSPs. The use of the RRSP preference accounted for only 4 per cent of AMT revenue in 1992 but 31 per cent in 1993 (see Appendix 1, Table A1.3). AMT revenue peaked in 1994, with 42,320 individuals paying a total \$197 million in additional tax. Since the lifetime capital gains exemption was being phased out in that year, there was an increase in the amount of capital gains declared, leading to more individuals having to pay the AMT.

Since taxpayers can claim the amount of incremental AMT they pay against future regular taxes, the amount of carry-over applied must be taken into account to determine net AMT revenue. As Table 3-1 indicates, while \$1.02 billion in gross AMT revenue was collected between 1988 and 1997, \$784 million was claimed back by AMT filers, leaving total net revenue from AMT for the period at \$237 million. Gross AMT revenue averaged just over \$100 million per annum during the period. However, on a net basis, revenue averaged only \$23.7 million. In fact, in 1990 and 1995, the Government paid out more in AMT than it collected. With the exception of 1993 and 1994, net revenue on an annual basis was less than \$50 million.

Table 3-1

Additional Revenue From AMT

Year	Incremental AMT		Carry-Over Applied		Annual
	# of Filers	Amount (\$)	# of Filers	Amount (\$)	Net Revenue (\$)
1988	17,354	115,286,000	31,389	83,570,000	31,716,000
1989	15,102	85,874,000	23,209	71,624,000	14,250,000
1990	13,810	48,062,000	24,762	84,776,000	(36,714,000)
1991	16,268	63,251,000	18,726	54,677,000	8,574,000
1992	17,005	64,976,000	19,027	48,353,000	16,623,000
1993	29,125	121,516,000	23,045	58,871,000	62,645,000
1994	42,320	196,848,000	29,444	76,591,000	120,257,000
1995	28,368	118,694,000	42,693	124,587,000	(5,893,000)
1996	28,872	100,481,000	36,224	99,638,000	843,000
1997	25,765	105,753,000	31,014	80,945,000	24,808,000
Totals		1,020,741,000		783,632,000	237,109,000

Effect of RRSP Removal

Since the 1998 budget measure regarding RRSPs was retroactive to 1994, the revenue shown for 1994 to 1997 is lower than the value shown in Table 3-1. This is shown in Table 3-2. In 1996 the number of filers falls below 10,000 while gross revenue was \$58.2 million, just over half of what it was before RRSPs were removed from the base.

Table 3-2
Effect of Removal of RRSPs on Gross AMT Revenues

Year	Before Removal		After Removal	
	# of Filers	Amount \$	# of Filers	Amount \$
1994	42,320	196,848,000	22,334	110,963,000
1995	28,368	100,481,000	11,645	76,564,000
1996	28,872	118,694,000	9,847	58,208,000
1997	25,765	105,753,000	10,640	68,884,000

Characteristics of AMT Filers

This section looks at the results for 1997 since it is the most recent year for which data is available and because there were no significant shocks to either the tax system or the economy. It was also fairly representative of the period. Figures 3-1 and 3-2 show the income distribution of AMT filers for 1997 after adjusting for the 1998 budget changes. Of the filers affected, 21 per cent had gross incomes below \$100,000 (Figure 3-1) and 48 per cent had gross incomes of \$250,000 or more.²³ However, if one considers revenue collected, then the picture changes somewhat (Figure 3-2). In 1997, 94 per cent of AMT revenue was paid by filers who had gross incomes of more than \$100,000, with 81 per cent of the revenue coming from filers with gross incomes of \$250,000 or more. AMT filers with gross incomes of more than \$250,000 paid on average an extra \$10,851 in tax because of the AMT in 1997. This is similar throughout the 1988-1997 period.

Figure 3-1
**Income Distribution of AMT Filers,
 by Number of Filers, 1997**

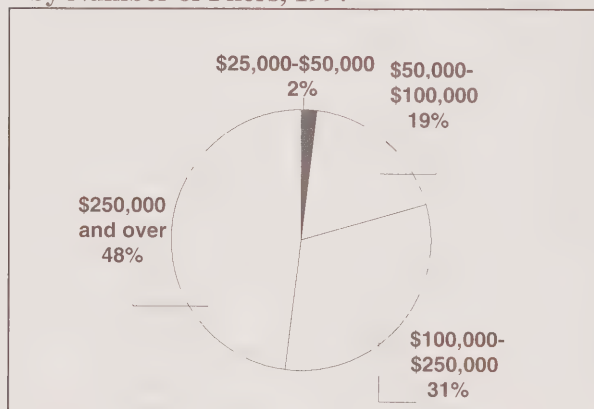
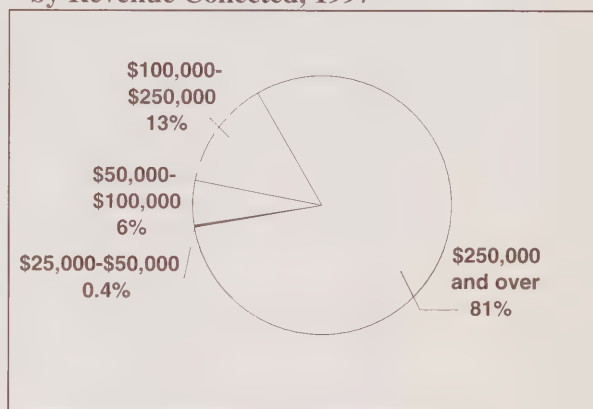


Figure 3-2
**Income Distribution of AMT Filers,
 by Revenue Collected, 1997**



²³ Gross income is equal to total income for regular tax purposes (line 150 on tax returns) plus the exempt portion of capital gains and losses due to CCA, carrying charges or resource expenditures less the dividend gross-up.

In 1997, there were no filers with gross incomes below \$25,000 paying AMT. However, in other years a small number of filers with gross incomes below \$25,000 did pay AMT.²⁴ Apart from this difference, the results are similar between 1994 and 1996.²⁵ Before 1994, there were a significant percentage of filers with incomes below \$100,000 paying AMT. In fact, in 1991 more than half of AMT filers had gross incomes of less than \$100,000. Nevertheless, these low-income filers accounted for less than one-half of the revenue collected. On average, between 1988 and 1997, individuals with incomes in excess of \$100,000 paid 83 per cent of the AMT revenue while those with incomes in excess of \$250,000 contributed 68 per cent of the revenue.

Figures 3-3 and 3-4 present the age distribution and the occupations of AMT filers respectively in 1997. The vast majority of AMT filers are over 40 years of age, with 20 per cent of AMT revenue coming from seniors (Figure 3-3). The percentage of revenue coming from seniors has been rising steadily in recent years. Otherwise, the results are relatively stable over the 1988-1997 period. Figure 3-4 presents the occupations of AMT filers based on the major source of income on their tax returns. Over 70 per cent of AMT revenue came from investors and property owners while 16 per cent came from public and private sector employees. Based on the above discussion, it can be concluded that a typical AMT filer would be an investor or property owner over 40 years of age with an annual income in excess of \$100,000.

Figure 3-3
Age Distribution of AMT Filers,
by Revenue Collected, 1997

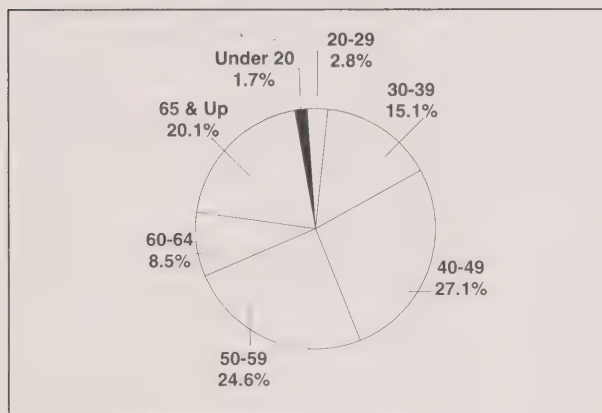
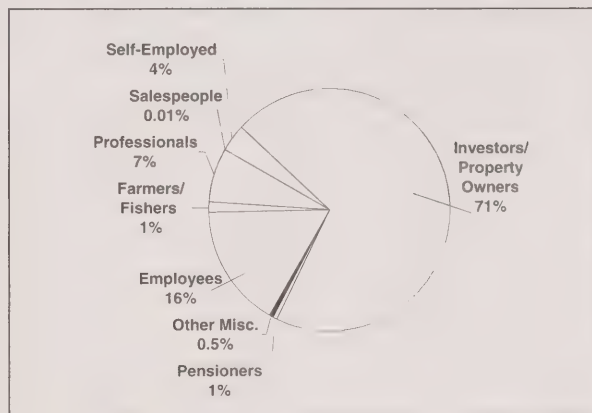


Figure 3-4
Occupations of AMT Filers,
by Revenue Collected, 1997



²⁴ In some years there were some filers who had gross incomes of zero or less (due to losses) who paid significant amounts of AMT. This is because the AMT disallows the portion of losses created by CCA, some carrying charges and resource expenses.

²⁵ Data for previous years can be found in Appendix 1. The removal of RRSPs from the AMT base in the 1994 tax year dramatically reduced the number of AMT filers with incomes between \$0 and \$50,000.

The Impact on Individual AMT Filers

This section relies on data from the recently constructed longitudinal tax data file for 1990-1996.²⁶ The section considers the number of times a filer was taxed under AMT rules during this period and how long it took before such taxes were recouped by these taxpayers.

Table 3-3 presents the number of years that an individual had to pay AMT between 1990 and 1996. Over this seven-year period, 92.14 per cent of AMT filers paid minimum tax only once while a mere 10 filers paid AMT in every year. This suggests that most AMT filers are receiving a windfall gain (such as a capital gain) in one year that triggers AMT.

Another important issue with the AMT is how quickly individuals were able to use the carry-over provision to reclaim the extra tax that they had to pay. To measure this, a sample of filers who paid AMT only once during the period was chosen. Table 3-4 indicates the results for the sample of 9,190 filers who paid minimum tax only in 1990.²⁷ Over half of these filers had reclaimed the AMT in two years and 70.3 per cent had reclaimed the extra amount of tax they paid in six years. In addition, most of the AMT paid in 1990 by these filers was recouped very quickly. In the first year alone, 68.4 per cent of the tax paid in 1990 was reclaimed. Within two years, only 15.4 per cent of the total amount was remaining. Therefore, those filers who still had not fully claimed back the AMT by 1997 had only a small amount to reclaim in 1997 (an average of \$318). If they did not do so, the carry-over would have been lost since the extra tax paid as a result of the AMT can only be claimed up to seven years after it was paid. These findings are similar to those of Larin and Jacques in their study using Quebec AMT data.²⁸

Table 3-3
Number of Years Individuals Paid AMT,
1990-1996

# of Years That AMT Was Paid	Number of Filers	%
1	138,840	92.14
2	9,960	6.61
3	1,280	0.85
4	430	0.29
5	130	0.09
6	30	0.02
7	10	0.01
Total	50,680	100.00

Table 3-4
Amount of Carry-Over Remaining for AMT Filers
Who Paid AMT Only in 1990

Year	Number of Filers	%	\$	%
1990	9,190	100.0	30,153,144	100.0
1991	5,130	55.8	9,526,932	31.6
1992	4,050	44.1	4,647,100	15.4
1993	3,560	38.7	2,972,791	9.9
1994	3,210	34.9	1,962,834	6.5
1995	2,910	31.7	1,914,900	4.4
1996	2,730	29.7	868,555	2.9

²⁶ RRSPs were not removed from the data in this section.

²⁷ While some of these filers may have paid AMT before 1990, only the amount of AMT paid in 1990 is used as a carry-over amount.

²⁸ Larin and Jacques, "Is the Alternative Minimum Tax a Paper Tiger?"

From the longitudinal data it is clear that, for most minimum tax filers, the AMT is a "once in a lifetime" tax. In addition, the results on the use of the carry-over mechanism support the hypothesis that most filers are able to claim the tax back in the long run and, in fact, claim most of it back in the short run. If the carry-over claimed in each year was discounted at a 5-per-cent rate, the \$30.2 million collected from the 9,190 filers in 1990 would have had a present value to the Government of just under \$3 million.

Effectiveness at Reducing Non-Taxable Returns

The main objective of the AMT is to reduce the extent to which high-income individuals pay little or no tax in a given year. This can occur in two ways. First, it can cause individuals with no regular taxes to pay a minimum amount of tax. Second, it can induce individuals to change their behaviour so that they pay a small amount of regular tax over time rather than a large amount of AMT.

The impact of the AMT on the proportion of high income non-taxable returns can be seen in Table 3-5.²⁹

Table 3-5

Number of High-Income Non-Taxable Returns

(From the Canada Customs and Revenue Agency's *Tax Statistics on Individuals*)

Tax Year	\$100,000 – \$250,000		\$250,000 and Over		Total Over \$100,000	
	Number	% of Returns	Number	% of Returns	Number	% of Returns
1983	998	1.48	178	1.90	1,176	1.53
1984	1,543	2.10	287	2.66	1,830	2.17
1985	1,277	1.41	254	1.78	1,531	1.46
1986	530	0.51	100	0.64	630	0.53
1987	480	0.42	100	0.55	580	0.44
1988	500	0.33	140	0.46	640	0.35
1989	920	0.49	180	0.48	1,100	0.49
1990	1,270	0.62	250	0.69	1,520	0.63
1991	1,700	0.80	190	0.54	1,890	0.76
1992	1,930	0.88	340	0.90	2,270	0.89
1993	1,680	0.70	250	0.57	1,930	0.68
1994	3,230	0.82	290	0.53	3,520	0.79
1995	1,520	0.59	230	0.51	1,750	0.58
1996	1,400	0.49	310	0.58	1,710	0.51
1983-85 Average	1,273	1.66	240	2.12	1,512	1.72
1986-96 Average	1,378	0.61	216	0.59	1,595	0.60

²⁹ The figures presented in this section are based on total income for tax purposes.

There is an immediate drop in the percentage of non-taxable filers coinciding with the introduction of the AMT in 1986. The drop in high-income non-taxable returns is maintained throughout the period, with the average proportion of high-income non-taxable returns falling 65 per cent between the 1983-85 and the 1986-96 periods. Even though in 1996 there were 1,710 non-taxable filers with total incomes for tax purposes of \$100,000 or more, this accounted for only 0.51 per cent of filers in that income group. This suggests that the AMT has been effective at reducing the proportion of non-taxpaying filers at higher-income levels. At the same time, however, other changes in the tax system may have contributed to this decline.

Despite the sharp drop in the share of non-taxable returns, only a fraction of those who have no regular income tax pay minimum tax (Table 3-6). On average, between 1988 and 1996, 27 per cent of high-income filers who had no regular income tax paid minimum tax, with a higher percentage for the subset of individuals with incomes of \$250,000 or more. This also points to a change in behaviour – taxpayers made less use of preferences disallowed by the AMT, but still used other preferences and deductions to reduce their tax liability to zero.

Another perspective to consider is the percentage of AMT filers who had to pay some tax but had their taxes increased as a result of the AMT. This is shown for the years 1988-1997 in Table 3-7 for all income levels.³⁰ On average, 92.4 per cent of AMT filers were already taxable. These individuals were responsible for 88.2 per cent of additional tax collected from the AMT, paying on average an extra \$3,333 in tax.

Table 3-6
Percentage of Filers With No Regular
Income Tax Payable Who Paid AMT

Year	\$100,000- \$250,000	\$250,000 and Over	Over \$100,000
1988	22	45	29
1989	36	46	38
1990	17	35	21
1991	18	31	20
1992	23	31	24
1993	33	49	36
1994	21	52	25
1995	26	44	29
1996	23	33	25
Average	24	41	27

Table 3-7
Percentage of AMT Filers Who Had Some
Regular Tax Payable, 1988-1997

Total (All Income Levels)			
Year	% of Filers	% of Rev.	Avg. AMT Paid (\$)
1988	90.8	74.4	3,347
1989	92.5	88.9	3,932
1990	93.5	89.9	2,226
1991	93.4	94.1	2,582
1992	93.8	92.7	2,490
1993	95.4	95.0	2,625
1994	93.8	93.6	3,274
1995	91.5	85.7	4,639
1996	89.1	82.9	3,826
1997	89.8	85.4	4,390
Average	92.4	88.2	3,333

³⁰ The 1999 edition of *Tax Statistics on Individuals* was not available at the time of writing. Therefore, data for 1997 was not included in Table 3-5. With respect to Table 3-6, data was readily available only for the years 1988 to 1996.

IV. SPECIFIC ISSUES

What Does It Take to Trigger AMT?

AMT is triggered when minimum tax payable exceeds federal basic tax. In order for this to occur, the amount of preferences added to regular taxable income under the AMT must satisfy two conditions. First, the preferences must, in principle, exceed the \$40,000 exemption. However, this is not the case when there are dividends or capital gains. This is because dividends and capital gains use up some of the room that could have been used for other preferences even though they will not trigger AMT by themselves. Second, when the individual has taxable income in the middle- and upper-income brackets, the amount of preferences must be sufficient to compensate for the difference between their statutory marginal tax rate and the AMT tax rate (17 per cent).

Again, this will depend on whether or not the individual has dividends or capital gains. This is because the top marginal rates on dividends and capital gains are lower than the rate for interest or employment income.

Table 4-1 indicates the level of AMT preferences (other than capital gains) that would be required just to equate regular taxes with basic federal tax at various levels of income. If an individual has preferences in excess of this amount, he or she will likely be subject to minimum tax. Individuals with interest or employment income between \$100,000 and \$500,000 need to have between 51 and 43 per cent of their income reduced by AMT preferences. If the individual has income only from dividends or capital gains, the level of AMT preferences is much less.

Table 4-1

Amount of Preferences Required Before AMT is Triggered

Gross Income (\$)	Source	Interest or Employment		All From Dividends		All From Cap. Gains	
	Preferences	% of Total	Preferences	% of Total	Preferences	% of Total	
	Req'd	Income	Req'd	Income	Req'd	Income	
	(\$)	(%)	(\$)	(%)	(\$)	(%)	
50,000	40,000	80.0	13,674	27.3	27,500	55.0	
100,000	50,525	50.5	17,067	17.1	25,525	25.5	
150,000	70,213	46.8	21,528	14.4	32,713	21.8	
200,000	90,903	45.5	25,989	13.0	40,903	20.5	
250,000	111,592	44.6	30,450	12.0	49,092	19.6	
300,000	132,282	44.1	34,911	11.6	57,282	19.1	
400,000	173,661	43.4	43,834	11.0	73,661	18.4	
500,000	215,041	43.0	52,756	10.6	90,041	18.0	

Dividends, Capital Gains and the AMT

The 1985 discussion paper raised the concern that limiting the dividend tax credit in some way would interfere with the integration of the tax system, causing income to be taxed at both the corporate and personal levels.³¹ Nevertheless, the relatively low AMT rate and the \$40,000 exemption help to reduce the likelihood of double taxation of dividends.

Indeed, under the current system the inclusion of dividends without any other preferences would not trigger AMT. This is because even with the favourable treatment given to dividends under the regular tax system, the top marginal rate on dividends is 19.6 per cent, which exceeds the 17-per-cent rate under the AMT. This is shown in Example 2a. However, if the individual has AMT preference items, there is a potential for dividends to be exposed to AMT, as indicated in Example 2b.

Under the AMT capital gains are fully taxable. As with dividends, the inclusion of the non-taxed portion of capital gains in taxable income will not by itself cause a taxpayer to pay AMT. Again, this is because of the difference between the top federal rate of 29 per cent and the AMT rate of 17 per cent in addition to the \$40,000 exclusion (see Example 3a). In this case, the top marginal rate (ignoring surtaxes) is 21.75 per cent ($\frac{3}{4} \times 29$ per cent) under the regular tax system compared to 17 per cent for the AMT. However, if there are other AMT preferences, then the inclusion of the non-taxed portion of capital gains can help to trigger the AMT.

³¹ Note that since the dividend tax credit can be claimed for dividends received from profits on which little or no corporate tax was paid, the minimum tax could help to rectify this problem. The Technical Committee on Business Taxation examined this issue and proposed a corporate distribution tax, which is similar to taxes used in Europe, to address this problem directly. See the discussion on integration in Chapter 7 of the *Report of the Technical Committee on Business Taxation* (Ottawa: December 1997).

EXAMPLE 2 – Dividends and the AMT

	Regular Tax	AMT
	(\$)	(\$)
a) Individual has \$100,000 in dividends with no other deductions		
Taxable Dividend	125,000	100,000
Taxable Income	125,000	100,000
AMT Exemption		40,000
Net Taxable Income	125,000	60,000
Tax on Income	31,812	10,200
Dividend Tax Credit	16,663	
Net Tax on Income	15,149	10,200

b) Individual has \$100,000 in dividends with \$50,000 deduction for carrying charges

Taxable Dividend	125,000	100,000
Carrying Charges	50,000	–
Taxable Income	75,000	100,000
AMT Exemption		40,000
Net Taxable Income	75,000	60,000
Tax on Income	17,312	10,200
Dividend Tax Credit	16,663	
Net Tax on Income	649	10,200

EXAMPLE 3 – Capital Gains and the AMT

	Regular Tax	AMT
	(\$)	(\$)
a) Individual has \$500,000 capital gain with no other deductions		
Capital Gain	500,000	500,000
Taxable Gain	375,000	500,000
Taxable Income	375,000	500,000
AMT Exemption		40,000
Net Taxable Income	375,000	460,000
Tax on Income	104,312	78,200

b) Individual has \$500,000 capital gain eligible for capital gains exemption and no other income

Capital Gain	500,000	500,000
Taxable Gain	375,000	500,000
Cap. Gain Exemption	375,000	375,000
Taxable Income	–	125,500
AMT Exemption	–	40,000
Net Taxable Income	–	85,000
Tax on Income	–	14,450

c) Individual has \$500,000 capital gain eligible for capital gains exemption and other income

Capital Gain	500,000	500,000
Taxable Gain	375,000	500,000
Other Income	157,400	157,400
Total Income	532,400	657,400
Cap. Gain Exemption	375,000	375,000
Taxable Income	157,400	282,400
AMT Exemption		40,000
Net Taxable Income	157,400	242,400
Tax on Income	41,208	41,208

Effect of the Lifetime Capital Gains Exemption

While capital gains by themselves will generally not trigger AMT, the use of the \$500,000 lifetime capital gains exemption by itself will cause a tax filer to pay minimum tax when the tax filer has no other income and the capital gain is greater than \$160,000. This situation is shown in Example 3b. The reason is that while the exemption reduces taxable capital gains to zero under the regular tax system, under the AMT, 25 per cent of the capital gain is added to taxable income (see the section entitled “The AMT in Practice” above). On the other hand, if an individual has substantial amounts of other income and no other AMT preferences, he or she may not be subject to minimum tax. For example, for a \$500,000 capital gain, if the individual has more than \$157,400 in other income, then regular tax payable will exceed AMT payable (see Example 3c).

Reasons for Individuals Having to Pay the AMT

This section addresses the question of why individuals pay minimum tax rather than regular tax. To determine the relative importance of a preference included in the AMT base, the Personal Income Tax T1 Model was used to recalculate the amount of AMT individuals would have to pay if one of the tax preferences was taken out of the AMT base. This exercise was conducted for RRSP deductions (up to 1994), the inclusion of capital gains, CCA losses, resource expenditure losses, carrying charges, employee stock option deductions and deductions for home relocation loans. The model was also used to determine what would happen if the dividend gross-up and credit system was used with the AMT. Table 4-2 presents the percentage of filers affected and the percentage reduction in the amount of AMT paid when a change is made to the AMT base using 1997 data. In effect, Table 4-2 indicates what would happen if a preference was allowed under the AMT rather than disallowed. Because AMT may be triggered by a combination of preferences, the removal of any one of them may cause the individual to pay regular rather than minimum tax (i.e., a 100-per-cent reduction in AMT for that individual), even though it is only a portion of total preferences. Therefore, the contribution of the various preferences should not be added together.

In 1997, 62 per cent of total AMT filers would have been affected if capital gains had been removed from the base, leading to a 42-per-cent drop in total AMT revenue. In general, the inclusion of the normally exempt one-quarter of capital gains was the most important contributor to AMT revenues. In 1994, capital gains were responsible for 86 per cent of AMT revenue. This reflects the increase in capital gains realized in 1994 due to the termination of the general lifetime capital gains exemption.³²

Losses due to carrying charges on resource expenditures or rental and leasing property were added to the AMT base in 1995, and have become the second most important component in the AMT base. If these carrying charges had not been included in the base, AMT revenue would have been 31 per cent lower in 1997.

³² Results for previous years are presented in Appendix 1.

Table 4-2

**Percentage of AMT Filers Affected and the Percentage Reduction in AMT Revenue
Caused by a Change in the AMT Base, 1997**

	Excluded Capital Gains		Losses From Carrying Charges		Treatment of Dividends	
	Filers (%)	Amount (%)	Filers (%)	Amount (%)	Filers (%)	Amount (%)
Gross Income (\$)	Filers	Amount	Filers	Amount	Filers	Amount
25,000 – 50,000	4.1	0.8	0.0	0.0	100.0	89.1
50,000 – 100,000	18.2	1.1	21.6	21.6	54.3	25.8
100,000 – 250,000	65.4	26.9	26.3	48.0	60.9	28.2
250,000 and Over	79.3	47.7	18.9	28.4	61.1	29.1
Total	62.0	42.1	21.3	30.6	60.6	29.0

	Losses From Resource Property		Losses From CCA		Employee Stock Options	
	Filers (%)	Amount (%)	Filers (%)	Amount (%)	Filers (%)	Amount (%)
Gross Income (\$)	Filers	Amount	Filers	Amount	Filers	Amount
25,000 – 50,000	0.5	0.0	0.0	0.0	0.0	0.0
50,000 – 100,000	1.3	0.7	8.6	21.6	0.0	0.0
100,000 – 250,000	16.3	14.0	1.4	0.1	1.4	1.0
250,000 and Over	12.0	10.8	1.4	2.0	2.9	2.4
Total	11.1	10.7	2.7	2.8	1.8	2.1

If dividends were treated as they are under the regular tax system, AMT revenues would also be lower. In 1997, the drop would have been 29 per cent. On average, between 1988 and 1997 revenues would have been reduced by 20 per cent if the gross-up and credit system had been used.

Losses from resource property are the next most important component, accounting for 11 per cent of revenue in 1997 (down from 15 per cent in 1996). Losses from CCA and the employee stock option deduction each contribute between 2 and 3 per cent of revenue, while the home relocation loan deduction and the disallowed non-refundable credits and other credits had little effect on AMT revenues.

The RRSP deduction was a relatively insignificant factor in the AMT base except in 1993, when it accounted for 31 per cent of gross AMT revenue. It was this sharp rise that prompted the 1998 budget measure to remove RRSPs from the AMT base.

Table 4-2 also presents the results broken down by gross income. For instance, if capital gains were removed from the base, only 4.1 per cent of filers in the \$25,000 to \$50,000 income group would have had their AMT reduced or eliminated (paying regular tax instead), leading to a 0.78-per-cent drop in the amount of minimum tax paid by that income group. In general, most of these preferences are used by high-income individuals, particularly the employee stock option deduction. However, the treatment of dividends was an important factor for individuals in the \$25,000 to \$50,000 income group. In fact, all filers in this group were affected and AMT revenue would have been 89 per cent lower if the dividend gross-up and credit was used. (The revenue decline

is not 100 per cent since some filers still had to pay AMT due to the amount of their preferences). In addition, losses from CCA were relatively more important for filers with gross incomes between \$50,000 and \$100,000.

A related issue concerns the change in the number of AMT filers who had no regular tax payable. In particular, how does the removal of a preference affect the number of otherwise non-taxable filers who have to pay AMT? Table 4-3 indicates the percentage reduction in otherwise non-taxable filers who pay AMT when a preference is removed. The removal of capital gains from the AMT base would have the largest impact, while losses from carrying charges and the treatment of dividends also have a significant effect. Most of the reductions were for individuals with high gross incomes. Losses from CCA, the deduction for home relocation loans and the disallowance of certain non-refundable credits had no effect on the number of otherwise non-taxable filers caught by the AMT.

Table 4-3

**Number of Otherwise Non-Taxable Filers Who Pay AMT
When a Preference Is Removed, 1997**

	# of Filers	% Change
Before Changes	1083	
Excluded Capital Gains	498	54
Losses From Carrying Charges	891	18
Treatment of Dividends	904	17
Losses From Resource Property	1021	6
Employee Stock Options	1070	1

Why Do Some High-Income Individuals Pay No Taxes Even With the AMT?

While the AMT has reduced the number of high-income filers who pay no taxes, there still remain a significant number of individuals who pay no taxes even with the AMT. This is because the AMT still allows several deductions that, when used by themselves or with other deductions, can allow a high-income individual to reduce his or her taxes to zero.

Even with the AMT, it is difficult to determine exactly why individuals were able to pay no income tax at an aggregate level. This is because, at the individual level, high-income non-taxpaying filers will generally claim a combination of preferences rather than one large deduction. Nevertheless, one can use the aggregate data to get a general sense of the relative importance of various preferences.

In 1997, 24 per cent of the non-taxpaying filers who had a total income for tax purposes of more than \$100,000 had zero taxable income, meaning these filers used deductions such as RRSPs, business losses and carrying charges to reduce their taxes to zero. Of the remaining 76 per cent of filers who had positive taxable incomes, over half (57.8 per cent) had taxable incomes of more than \$100,000. This suggests that

preferences such as the dividend tax credit, the foreign tax credit and charitable contributions, which are claimed after gross regular taxes are determined, were important factors in reducing taxes to zero for many filers.

Table 4-4 presents a list of preferences for individuals with total incomes for tax purposes of more than \$100,000 who paid no taxes. Note that some of these preferences are included in the AMT base.³³ Since it usually requires more than one preference to trigger AMT, it is possible for some disallowed preferences to contribute towards reducing taxes to zero despite the AMT. The table indicates the percentage of these filers who used a given preference, the average deduction claimed, and the percentage of the total value of deductions claimed for each preference. Note that these percentages can vary widely from year to year.

From the table, the two most important preferences that allowed many high-income individuals to reduce their taxes to zero, the foreign tax credit and the lifetime capital gains exemption, are not included in the AMT base. The foreign tax credit accounted for 24 per cent of the total deductions of all high-income non-taxable filers and was used by 32 per cent of high-income non-taxable filers.

The lifetime capital gains exemption for farm and small business property is also prominent among these filers, accounting for 22 per cent of total deductions. It was used by 24 per cent of high-income non-taxable filers.

The next preference in Table 4-4 is labelled “Additional Deductions From Net Income,” which is how it appears on a tax return and therefore in the data. Deductions for vows of perpetual poverty (where income is earned and given to a religious order), for net employment income from an international organization, and for foreign income received under a tax treaty are included in this item.

Relatively few filers claim allowable business investment losses (3.6 per cent), but the average deduction is very large (nearly \$356,000). The same is also true for non-capital losses carried over from previous years.³⁴ For this reason, these two deductions are fourth and fifth respectively in Table 4-4. The deduction for capital losses of previous years is not as significant, but the average deduction is relatively high.

³³ A complete list of preferences indicating those that are included in the AMT base is shown in Appendix 2.

³⁴ Some of these non-capital losses may be allowable business investment losses carried over from previous years.

Table 4-4

**Preferences Which Allowed Individuals With Incomes
Over \$100,000 to Reduce Their Taxes to Zero in 1997**

Deduction or Credit	% of High-Income, Non-Taxpaying Filers	Average Deduction (\$)	% of Total Deductions
Foreign Tax Credit ¹	32.3	111,245	24.11
Lifetime Capital Gains Exemption	24.3	137,046	22.41
Additional Deductions From Net Income ²	14.4	174,747	16.86
Allowable Business Investment Losses	3.6	355,899	8.61
Non-Capital Losses of Other Years	6.7	167,975	7.56
Carrying Charges and Interest Expenses	27.7	33,304	6.19
Other Deductions From Net Income ³	15.0	44,544	4.49
Charitable Contributions ⁴	25.2	26,427	4.48
RRSP/RPP Contributions	40.6	11,481	3.13
Capital Losses of Other Years	5.1	77,118	2.62
Dividend Tax Credit ¹	17.1	12,666	1.45
Employment Expenses	3.4	19,738	0.45
Employee Stock Options	0.4	81,154	0.23
Alimony/Support Payments	1.5	22,522	0.23
Exploration and Development Expenses	1.2	9,278	0.07
Overseas Employment Tax Credit ¹	small	73,563	0.05
Minimum Tax Carry-Forward ¹	1.1	4,894	0.03
Investment Tax Credit ¹	1.2	3,153	0.02
Labour-Sponsored Funds Tax Credit ¹	1.1	1,826	0.01

¹ Converted to a deduction equivalent assuming a 29% tax rate.

² Includes any deduction for foreign income received under a tax treaty, for a vow of perpetual poverty or for employment for a prescribed international organization.

³ Included deductions for Canadian motion picture, film and video tapes and other miscellaneous deductions.

⁴ Amount of charitable contributions assumed to be equivalent to a deduction.

It is important to keep in mind that the amount of losses claimed varies widely from year to year.³⁵ For instance, while the deduction for limited partnership losses from previous years was not used in 1997, it was used by some filers in 1996.

Many high-income, non-taxpaying filers also had significant deductions for carrying charges. Two common tax credits include the credit for charitable contributions and the dividend tax credit. RRSP contributions may be the most popular preference in the list (it was used by 40.6 per cent of high-income non-taxable filers), but since the deduction is limited to \$13,500, it is not a key preference for reducing taxes to zero.

³⁵ As an example of how widely the use of these preferences fluctuates, 20 per cent of high-income non-taxpaying filers had non-capital losses from previous years in 1996, but only 6.7% did in 1997.

This is indicated by the fact that RRSPs constitute only a little over 3 per cent of the total deductions and credits claimed. The remaining preferences are fairly insignificant, at least for the 1997 tax year. Nevertheless, the size of the average deduction indicates those that are more important to specific filers. The overseas employment tax credit and the deduction for employee stock options are notable examples.

V. OVERALL ASSESSMENT

The AMT was meant to “prevent high-income individuals from using one or more tax incentives to pay little or no tax in any given year.”³⁶ However, it was also important that “existing tax incentives put in place for valid economic and social reasons [not be] undermined by the minimum tax.”³⁷ Therefore, it was important for the AMT to strike an appropriate balance between these two objectives.

When the AMT was introduced, it was observed that “very few high-income individuals [had] been able to avoid paying taxes for any number of years.”³⁸ Therefore, even though the overall scope of the problem was small, the Government still felt that it needed to be addressed.

In addition, it was noted that the allowance of some deductions and tax credits would mean that some high-income Canadians would still pay no tax in a given year “in a strictly limited range of situations.”³⁹

Has the AMT satisfied its objectives? The proportion of high-income, non-taxable returns has fallen by an average of 65 per cent since the AMT was implemented. While a significant portion of this drop may be due to other changes in the tax system, the immediate drop in the percentage of non-taxable filers in 1986 suggests that the AMT had a substantial impact, either directly by causing individuals with no regular tax to pay some tax, or indirectly by causing individuals to alter their behaviour. While its overall revenue impact has been small, this is not out of line given the size of the problem the AMT was meant to address. In addition, since most of the individuals who pay the AMT were already paying regular tax, it can be concluded that the AMT ensured that many other individuals paid their fair share of tax.

Nevertheless, a number of high-income individuals are still able to reduce their tax liability to zero even with the AMT (this was recognized at the outset by the Government before it implemented the AMT). Two significant preferences used by these filers are the foreign tax credit and the lifetime capital gains exemption.

³⁶ Department of Finance Canada, “Minister Announces Minimum Tax.”

³⁷ Ibid.

³⁸ Ibid.

³⁹ Ibid.

Another issue concerning the AMT is the cost of compliance. Filers have to fill out a complicated form and essentially recalculate their taxes using the AMT base. After numerous calculations, some filers may determine that they do not have to pay minimum tax after all. In addition, the carry-over provision requires extra bookkeeping by both the Government and the taxpayer. Despite this, since most of the information required for the AMT is already provided under the regular tax system, the compliance burden is likely small.

Therefore, it can be concluded that the AMT has contributed to the reduction in the proportion of high-income non-taxable returns at a relatively minor cost to the public. In addition, the structure of the tax does not undermine the policy objectives behind the various preferences and reinforces tax fairness.

APPENDIX 1: Data Tables

Table A1.1

Income Distribution of AMT Filers, by Gross Income, 1988 – 1997

Gross Income (\$)	1988		1989		1990		1991		1992	
	% of Filers	Amount (%)	% of Filers	Amount (%)	% of Filers	Amount (%)	% of Filers	Amount (%)	% of Filers	Amount (%)
Negative or Nil	6.2	18.9	0.0	0.0	0.7	0.2	0.0	0.0	0.0	0.0
0 – 25,000	2.1	0.7	0.7	1.2	3.7	2.5	5.3	2.9	0.9	0.4
25 – 50,000	10.1	4.1	4.0	1.6	22.6	11.8	24.7	11.6	12.5	6.4
50,000 – 100,000	21.0	7.4	19.4	8.3	21.3	8.7	26.7	16.7	24.3	12.2
100,000 – 250,000	33.8	22.6	41.5	18.9	22.6	13.4	20.8	11.6	27.2	12.4
250,000 – Over	26.9	46.4	34.4	69.9	29.1	63.5	22.8	57.2	35.1	68.5

Gross Income (\$)	1993		1994		1995		1996		1997	
	% of Filers	Amount (%)	% of Filers	Amount (%)	% of Filers	Amount (%)	% of Filers	Amount (%)	% of Filers	Amount (%)
Negative or Nil	0.0	0.0	0.0	0.1	0.0	0.0	0.01	0.02	0.00	0.00
0 – 25,000	1.4	0.5	0.0	0.0	2.4	10.	0.00	0.0	0.00	0.0
25 – 50,000	13.7	6.1	0.0	0.0	18.4	8.2	2.9	0.6	2.0	0.4
50,000 – 100,000	23.3	11.4	5.8	1.8	31.7	13.4	16.0	4.5	18.6	5.6
100,000 – 250,000	26.7	13.0	30.8	9.0	25.3	17.4	26.2	20.3	31.3	13.5
250,000 – Over	35.0	69.0	63.3	89.1	22.2	59.9	44.9	74.7	48.1	80.6

Table A1.2

Average Amount of Minimum Tax Paid, by Income Group, 1988 – 1997

Gross Income (\$)	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
						(\$)				
Negative or Nil	20,183	16,000	878	12,000	6,400	9,800	12,333	18,333	1,000	–
0 – 25,000	2,335	10,310	2,318	2,131	1,745	1,429	3,000	1,821	–	–
25 – 50,000	2,679	2,235	1,817	1,819	1,964	1,865	9,000	1,871	1,189	1,189
50,000 – 100,000	2,335	2,448	1,424	2,460	1,921	2,040	1,512	1,767	1,659	1,936
100,000 – 250,000	4,445	2,595	2,034	2,164	1,740	2,034	1,460	2,876	3,307	2,790
250,000 – Over	11,460	11,549	7,580	9,758	7,465	8,229	6,989	11,283	9,836	10,851
All Filers	6,643	5,686	3,480	3,888	3,821	4,172	4,968	41,841	5,911	6,474

Table A1.3

**Percentage of AMT Filers Affected and the Percentage Reduction
in AMT Revenue Caused by a Change in the AMT Base, 1988 – 1997**

Preferences	1988		1989		1990		1991		1992	
	% of Filers	Amount (%)	% of Filers	Amount (%)	% of Filers	Amount (%)	% of Filers	Amount (%)	% of Filers	Amount (%)
Excluded Capital Gains	62.3	39.9	79.4	77.9	49.6	50.7	43.1	38.3	54.2	61.1
Losses From Carrying Charges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Losses From CCA	7.9	4.6	3.5	2.5	5.0	4.1	4.9	2.5	10.9	5.0
Losses From Resource Property	17.7	10.2	5.7	4.0	3.8	4.8	1.5	16.0	3.2	3.9
Employee Stock Options	0.3	0.2	0.7	0.7	0.4	0.9	0.1	0.3	0.3	0.2
RRSPs	6.0	2.6	4.0	4.5	2.9	2.8	2.4	2.0	9.0	4.3
Treatment of Dividends	57.5	14.1	48.4	14.0	46.6	26.7	43.0	18.8	43.1	22.4

Preferences	1993		1994		1995		1996		1997	
	% of Filers	Amount (%)	% of Filers	Amount (%)	% of Filers	Amount (%)	% of Filers	Amount (%)	% of Filers	Amount (%)
Excluded Capital Gains	62.4	68.2	91.8	86.0	67.5	44.7	63.9	41.9	62.0	42.1
Losses From Carrying Charges	n.a.	n.a.	n.a.	n.a.	18.7	34.5	22.3	32.9	21.3	30.6
Losses From CCA	2.5	2.3	1.6	3.9	3.3	7.4	0.6	1.4	2.7	2.8
Losses From Resource Property	3.9	4.1	5.9	5.3	7.2	7.5	11.2	14.5	11.1	10.7
Employee Stock Options	0.6	0.6	3.3	1.8	1.3	2.5	2.5	3.0	1.8	2.1
RRSPs	75.0	31.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Treatment of Dividends	45.7	15.7	50.0	18.4	56.9	20.5	52.5	24.4	28.5	29.0

APPENDIX 2: List of Tax Preferences and Deductions

Tax Preferences	Included in AMT Base?	Remarks
<i>Before Total Income:</i>		
Losses due to CCA and carrying charges on rental and leasing property	Yes	This tax shelter has been closed since 1994.
Losses due to CCA and carrying charges on certified film property	Yes	This tax shelter has been closed since 1995.
Losses from limited partnerships or tax-shelter partnerships	Yes	Some of these deductions were related to those above.
Deductible amounts with respect to tax shelters	Yes	
Carrying charges related to limited partnership, or partnership that owns rental, leasing or film property	Yes	
Non-taxable portion of capital gains	Yes	Does not include non-taxable portion of gains resulting from foreclosures, conditional sales reposessions, gains exempt under a tax treaty, and gains on certain gifts and donations.
Exemption of first \$500 of scholarship income	No	
Other exempt income (e.g., capital dividends)	No	
<i>Before Net Income:</i>		
RPPs and RRSPs	No	Effective 1994 tax year.
RESPs	No	
Union dues	No	
Child care expenses	No	
Attendant care expenses	No	
Allowable business investment loss	No	100% deductible rather than 75% deductible.
Moving expenses	No	
Support payments	No	
Carrying charges and interest expenses	Yes	Only for investments relating to tax shelters, limited partnerships, resource property, certified film property or rental and leasing property.
Exploration and development expenses	Yes	Only to the extent that carrying charges and depletion allowances and other expenditures create a loss.
Interest and dividend income deduction	Yes	Deduction withdrawn in 1988 tax year.
Other employment expenses	No	
Meals and entertainment expenses	No	
Other deductions (*see list below)	No	

Tax Preferences	Included in AMT Base?	Remarks
<i>Before Taxable Income:</i>		
Employee home relocation loans	Yes	
Stock option and shares deduction	Yes	
Limited partnership losses of other years	Yes	Only losses from CCA and carrying charges on Multiple-unit residential buildings, film property, rental and leasing property, and resource expenditures and depletion allowances.
Non-capital losses of other years	Yes	See above.
Net capital losses of other years	No	Net non-deducted losses from previous years are subtracted from the AMT base.
Lifetime capital gains deduction	No	
Northern residents deduction	No	
Additional deductions	No	
<i>Non-Refundable Credits:</i>		
Personal non-refundable credits	No	
CPP/EI contributions	No	
Pension income	Yes	
Caregiver amount	No	
Disability amount	No	
Disability amount transferred from dependant other than spouse	Yes	
Interest on student loans	No	
Tuition and education amounts	No	
Tuition and education transferred from child	Yes	
Amounts transferred from spouse	Yes	
Medical expenses	No	
Charitable contributions credit	No	
<i>Other Credits:</i>		
Dividend tax credit	Yes	Dividends are included at their cash value.
Foreign tax credit	No	Modified version is used for AMT purposes.
Logging tax credit	Yes	
Overseas tax credit	Yes	
Political contribution tax credit	Yes	
Labour-sponsored funds credit	Yes	
Investment tax credit	Yes	Non-refundable portion only.

* Other deductions include assistance for artists and musicians, and deductions for clergy and those who have taken vows of perpetual poverty.

GST/HST TREATMENT OF EXPORT DISTRIBUTION

I. INTRODUCTION

The 2000 budget announced changes to the goods and services tax/harmonized sales tax (GST/HST) treatment of export distribution activity. This paper provides detailed information on these changes. The proposed changes would ensure that the cash-flow implications from having to pay and finance the GST/HST do not impose unintended costs that would preclude Canada as a location for North American distribution businesses. The measures would enable participants to acquire or import most goods without the payment of GST/HST where those businesses export substantially all of their outputs or perform export distribution operations for other businesses, and add limited value added in the course of processing goods.

The legislative proposals for these changes would come into force on January 1, 2001, so as to allow for consultations in the spring of 2000.

II. BACKGROUND

The GST/HST Treatment of Export Distribution Activity

A number of programs under the GST/HST provide cash-flow relief with respect to the export sector. These programs are each targeted towards a certain type of export-oriented activity. However, as a result of ongoing monitoring of the GST/HST application to the import and export sectors, it was determined that none of the programs adequately deal with the problem faced by businesses involved in distribution activities. These export-oriented firms want to perform some limited processing activity on goods either imported or purchased in Canada for export. An increasing number of firms are engaged in this type of activity, such as the installation of software or customization of products to reflect purchasers' specific needs.

No GST/HST applies to exported goods and services, and tax paid by exporters on their inputs is fully refundable through the input tax credit mechanism. However, in cases where there is minimal processing in Canada, the cost of financing the GST/HST paid on either imported or domestically acquired goods to be processed, as well as various component parts, can be significant in relation to the level of value added to goods. In particular, these financing charges can be significant given that the profit margins of these types of businesses are low in relation to the value of goods processed. Thus, for these types of businesses, financing the GST/HST component can increase their capital requirements, ultimately affecting the viability of locating such an operation in Canada.

How the GST/HST Operates

The GST/HST is a tax on the final consumption of goods and services in Canada. A supplier is required to collect either the GST at the rate of 7 per cent or the HST at a rate of 15 per cent on any taxable supplies, other than "zero-rated" supplies¹, made in Canada. In order to eliminate the taxation of inputs, the GST/HST is designed as a multi-stage tax.

¹ Zero-rated goods and services are those to which a "zero" rate of tax applies – in other words, they are totally tax-free.

While businesses throughout the production and distribution chain charge tax on their domestic sales, they are able to claim a refundable credit, called an “input tax credit”, for any tax paid on purchases of goods and services used in the course of carrying on business.

Based on a determined reporting schedule, a business simply adds up all of the GST/HST it has paid to suppliers, and subtracts this from the GST/HST it collects on its sales. Only the net amount – tax collected less tax paid – is remitted to the Government.

Under the GST/HST system, businesses that supply the domestic market are generally required to collect the GST/HST on their supplies. Where the GST/HST is collected, the vendor may receive a cash-flow benefit from holding the GST/HST amounts in trust until they are required to be remitted to the Government. For most businesses, the amounts collected would be greater than the GST/HST paid on purchases.

A key objective of a value-added tax such as the GST/HST is to fully relieve exported goods and services from the tax. Thus, no GST/HST is charged on sales made outside of Canada and goods and services destined for export are zero-rated. Under the GST/HST system, where an exporter purchases or imports goods, it must pay tax on the purchases, which it subsequently recovers through the input tax credit mechanism. Where the Government has not sent the refund of GST/HST within 21 days of receiving the GST/HST return, it pays interest based on the amount owed calculated by reference to recent Treasury Bill rates.

Exporters face a cash-flow burden because they do not collect any GST/HST to offset the amount of the GST/HST they pay on their purchases, but rather claim the tax back through the input tax credit mechanism. However, it is important to recognize that alternative approaches to this mechanism to relieve this burden and to ensure that sales tax applies only at the point of final consumption in Canada, such as single-stage sales taxes (e.g., retail sales tax), involve the universal use of exemption certificates. These certificates provide point-of-sale tax relief in limited circumstances. That is, not all businesses are able to use the certificates and the certificate cannot be used for all purchases. Indeed, as a general rule, about a third of revenues from such taxes come from taxes on business inputs. As a result, tax systems that rely on exemption certificates cannot remove all of the tax from exports.

In addition, since a good may have several different uses, vendors and tax authorities find it difficult to determine whether the sale is tax-free or not. The liberal use of certificates would cause significant exceptions to the general application of the sales tax. For tax administrators, a system using exemption certificates, unlike an input tax credit system, provides few opportunities for cross-verification.

The GST/HST, on the other hand, allows purchasers to claim input tax credits and, therefore, eliminates tax cascading and administrative complexities. However, the benefits may come, in special circumstances, at the cost of a cash-flow burden for certain sectors, such as exporters.

III. PROPOSED CHANGES TO THE GST/HST TREATMENT OF EXPORT DISTRIBUTION ACTIVITY

To address the issues discussed above relating to export distribution activities, changes to the GST/HST treatment of these activities are proposed. The changes would ensure that the cash-flow implications from having to pay and finance the GST/HST do not impose costs that would preclude Canada as a location for North American distribution businesses. The measures would be designed in a targeted manner to ensure that the effectiveness of the multi-stage GST/HST tax is not impaired.

Overview

The changes are aimed at export distribution businesses that perform limited processing on goods before they are exported. These proposals do not require the establishment of specific geographic “tax-free zones” or “foreign trade zones.” Nonetheless, the changes, when coupled with other existing programs (e.g., the Duty Deferral Program that provides duty relief), would provide the benefits of such zones. But unlike tax-free zones or foreign-trade zones, which restrict the benefits only to those businesses situated within a particular geographical area, the changes would apply to eligible businesses regardless of where they are located. As such, this approach would not promote the dislocation of existing industry from one locale to another, which could be the case if designated geographical zones were created.

The proposed changes are aimed only at those export-oriented businesses that carry on limited processing where the cash-flow costs associated with the GST/HST are significant relative to the value added. The new measures would not apply to businesses that manufacture or produce goods, thereby adding significant value in the process. In such circumstances, the cash-flow costs resulting from the GST/HST on the goods either acquired domestically or imported are much less significant in relative terms.²

EXAMPLE 1: A good costs \$100 to produce and bring to market. The cost (excluding soft costs) to produce the good up to the point of distribution is \$50 worth of material and \$35 labour. The distribution of the product (e.g., packing and shipping) costs \$15. A manufacturer would be required to pay and finance \$3.50 GST on material costs in the course of producing the good up to the point of distribution. In contrast, a distribution business that acquires the good or imports it on the manufacturer’s behalf would be required to pay and finance \$5.95 based on the value of the material and labour costs up to the point of distribution (i.e., \$85).

² For businesses that are engaged in manufacturing and/or producing, programs such as the Duty Deferral Program and the Exporters of Processing Services Program may provide relief from any applicable duty and the GST/HST on imported goods provided the particular program conditions are satisfied.

Through the use of a certificate, a business will be able to import, tax-free, its own goods or those belonging to another person. It will also be able to purchase domestic goods tax-free by using a certificate. Tax relief would be available for the purchase of goods that are to be processed as well as goods (e.g., component parts) that are to be added or utilized in the course of the processing activity.

Tax relief would not be available in respect of imports or purchases of capital property. Also, the certificate would not be available for domestic transactions valued at less than \$1,000. Limiting the use of the certificate to transactions of at least \$1,000 would reduce administrative complexities for domestic vendors and would normally only involve vendors having a significant business relationship with the certificate holder.³ Also, export distribution businesses would continue to pay GST/HST on any soft costs (e.g., rent, utilities, domestic transportation or professional services) acquired and consumed in Canada. However, as these businesses would be required to be registered for the purposes of the GST/HST in order to benefit from the proposed changes, they would be able to claim input tax credits for these GST/HST amounts in the normal fashion.

Eligibility Requirements

For the purposes of the proposed changes, eligible businesses would be those:

- whose “export revenue” accounts for at least 90 per cent of their total revenue generated from activities in Canada; and
- that add only limited value to goods.

The export revenue threshold is intended to target the proposed changes at export-oriented businesses. For this reason, an export revenue test would apply such that at least 90 per cent of the total revenue generated in Canada by a business must be generated from exports. The test would only apply with respect to revenue generated in Canada, since the inclusion of revenue generated outside Canada in determining whether or not the threshold has been exceeded would inappropriately exclude some businesses.

The export revenue threshold would ensure that, to use the proposed changes, a business would only have limited sales in the domestic market and, therefore, would not enjoy a cash-flow advantage over other domestic suppliers by virtue of using their certificate to acquire or import goods tax-free. For the purposes of this test, “export revenue” would include revenue from the sale of goods to be exported as well as revenue from the provision of services in respect of other persons’ goods that are to be exported.

It is also important to recognize with respect to the export revenue threshold that the cost to an export-oriented business of financing the GST/HST diminishes as domestic sales rise. This is due to the fact that the business is collecting GST/HST on their domestic sales and those amounts, which are held in trust by the business, are used to offset the GST/HST paid on either imported or domestically acquired goods.

³ It is important to reiterate that there are significant potential risks associated with the widespread utilization of exemption certificates. As previously stated, this system typically results in tax being built into the cost of exports, and both vendors and tax authorities find it difficult to determine whether a sale should be tax-free or not.

As the proposed changes are intended to address situations where only limited value-added processing takes place in relation to turnover, eligible businesses would not be able to undertake the manufacturing or producing of goods. There would also be defined limits on value added. For those businesses that process their own goods before export, the limit would require that the direct labour content of the cost of the goods supplied by the business not exceed a prescribed percentage.⁴ With respect to customers' goods, a test would apply to ensure that the value of the services provided in respect of those goods does not exceed a prescribed percentage of the total value of those services plus the value of the goods when imported or transferred to the business. In both instances, these prescribed percentages would be determined after consultations with stakeholders on the proposal.

Activities that can presently be undertaken in a customs bonded warehouse (CBW) would be specifically excluded from the value-added calculation. The rules with respect to the CBW Program allow a wide range of activities to be carried on, but these activities are subject to limitations. The exclusion of these activities that are presently allowed in a CBW reflect the fact that in certain situations, these activities, in and of themselves, could cause the defined limits on valued added to be exceeded easily.

EXAMPLE 2: Company A, a distribution business, purchases screws in bulk. The service it provides to the manufacturer is to break down the bulk screws and package them in plastic containers, five per package. At present, such activity can be undertaken in a CBW. Where such activity takes place under the proposed changes for export distribution activity, the value added by virtue of the packaging of the material would likely exceed the defined limits of value added to goods. However, activities, such as breaking bulk packages, that are presently allowed under the CBW Program are excluded from the value-added calculation.

Adjustments

The export revenue test and the value-added test would be applied on an annual basis at the end of a business's fiscal year. Where these tests are not satisfied, or there has been improper use of the certificate, the export distribution business would be required to make adjustments to its net tax for the first reporting period of the business following that fiscal year. This would ensure that no cash-flow benefits are realized by the business from having used the certificate when comparing its situation to other domestic vendors.

⁴ The cost of the goods should be ascertained in keeping with acceptable methods of cost determination used in inventory valuation.

EXAMPLE 3: Company B meets the eligibility criteria for using the proposed changes and is authorized by the Minister of National Revenue to use a certificate in order to obtain tax relief on domestic acquisitions and imports. However, at the end of its fiscal year, upon calculating its export revenue percentage for the year, it is determined that only 85 per cent of its total revenue was from exports. This was due to a large, one-time order from a domestic purchaser. As a result, Company B is required to make an adjustment to its net tax.

In certain circumstances, a business's authorization to use the proposed changes would be automatically revoked. This would occur immediately after their fiscal year where:

- the business manufactured or processed property during that year;
- the percentage value added in respect of a business's own property or that of a customer's for that year exceeds the prescribed percentage; or
- the business's export revenue percentage for that year is less than 80 per cent.

Administration

An application for the authority to use a certificate under the proposed changes would be required in a prescribed form and manner. An application would have to be filed with the Minister of National Revenue, who would be required to verify the applicant's eligibility to participate in the program prior to authorization.

The authorization to use a certificate would be valid up to three years after the day on which the authorization became effective unless the authorization is revoked prior to that time.

Where the three-year time period draws to an end, a qualifying business would be required to formally renew its authorization by submitting a request in writing to the Minister of National Revenue.

In addition to the circumstances where automatic revocation occurs (see above), the Minister could revoke an authorization at any time throughout a fiscal year where:

- the business fails to comply with any condition attached to the authorization;
- it can reasonably be expected that the business would commence manufacturing or producing goods;
- it can reasonably be expected that the business would fail the export revenue or value-added tests; or
- the business requests that the authorization be revoked.

Where the authorization for a business to use a certificate is revoked, effective on a particular day, the business would not be entitled to reacquire a certificate before:

- the day that is two years after the particular day, if the authorization was revoked because the business failed to comply with the proposed conditions; or
- in any other case, the first day of the second fiscal year of the business beginning after the particular day.

Coming Into Force Date

Budget 2000 proposed that the measures described above come into force on January 1, 2001. Consultations on specific aspects of the proposal, for example, to specified percentages for the value-added test, took place in the spring of 2000.

IV. CONCLUSION

The proposed changes in the GST/HST treatment of export distribution activity would alleviate the cash-flow burden faced by operators of qualifying distribution businesses as a result of their having to finance the GST/HST. As a result, the targeted changes are designed in such a manner as to remove any unintended costs that would preclude Canada as a location for North American distribution without threatening the effectiveness of the multi-stage GST/HST.

The proposed changes, in conjunction with the other programs currently available for imports and exports, support an overall objective of the GST/HST in relieving tax from exported goods and services. Moreover, unlike tax-free zones and foreign trade zones, which restrict the benefits only to those companies situated within a particular geographical area, the benefits of the proposed changes and existing programs apply to eligible businesses regardless of where they are located in Canada.

APPENDIX: Relevant Current GST/HST Rules for Exporters

The federal government recognizes the cash-flow burden often faced by export-oriented businesses and in the past has introduced programs to alleviate these associated financing costs. However, these programs are targeted towards certain types of activities. In particular, they do not allow for even limited processing of one's own goods prior to export – activities that typically take place in distribution businesses.

The programs that currently exist to provide GST/HST relief to exporters are briefly discussed below.

Exporters of Processing Services Program

The Exporters of Processing Services (EOPS) Program allows the tax-free importation of goods that continue to be owned by an unrelated non-resident, for the purpose of processing the goods in Canada and then re-exporting them. The EOPS Program has been designed to ensure that Canadian service providers can compete with non-Canadian service providers in world markets.

The EOPS Program has limited application in the context of distribution-business type activity. First, the program is targeted to service providers. Consequently, it does not apply when the service provider owns the goods. Second, all of the goods on which services are performed must be exported, which precludes any supplies to the Canadian market whatsoever. Finally, the resident service provider who is authorized to participate in the EOPS Program receives tax relief only on imports, as the program is export-service oriented. This precludes Canadian goods purchased by the non-resident from being serviced on a tax-free basis.

Adapting the EOPS Program to apply to distribution-business type activity would be problematic due to the broad range of services that it covers. In particular, removing the criterion that the service provider not own the goods being processed, and providing for tax-free acquisition of domestic products, would significantly erode the general application of the multi-stage tax, leading to added complexity for many domestic suppliers, and creating administrative difficulties in controlling tax-free purchases in the domestic economy.

Customs Bonded Warehouse

The CBW Program defers payment of taxes and duties until goods enter into the Canadian economy or are exported. Where the goods are exported, never having entered into the Canadian economy, no taxes or duties are payable. The CBW Program is effective in providing tax and duty relief where goods are transiting Canada, and no processing is required.

The program rules allow a wide range of activities to be carried on in a CBW. There are, however, limitations, namely that the goods in the warehouse should not be manipulated, altered or combined with other goods except in limited circumstances such as inspecting, labelling, storing, packaging or testing.⁵

The CBW Program could be used for certain distribution-centre type activities. However a number of issues arise. First, a business operating in a CBW can carry on only clearly defined limited processing activities with respect to goods. This does not reflect the nature of modern distribution centre activities, where goods are often customized to reflect particular markets or to meet a purchaser's specific requirements. Second, the CBW Program allows goods to leave the CBW either for export or to enter the domestic economy. Finally, a warehouse authorized under the CBW Program cannot acquire goods domestically free of tax; relief applies only to imports.

Expanding this program to distribution-business type activity would have negative implications. As this program provides tax relief only in respect of imported goods, it would create a bias towards importation versus domestically acquired goods. Further, the CBW Program is very broad in its application and can be used not only by export-oriented businesses, but also businesses supplying to the domestic market. Also, if minor processing were allowed under the CBW Program, an unfair distortion would be created against purely domestic suppliers such that they may face cash-flow costs on domestic and imported inputs that a CBW would not. In addition, domestic suppliers of inputs to businesses operating in a CBW would be disadvantaged compared to non-resident competitors, who would not be required to charge and collect the GST/HST when shipping into a CBW situated in Canada.

Export Trading House

The Export Trading House (ETH) Program relieves GST/HST on domestic goods purchased for resale by businesses that are exporters. This program is the domestic counterpart of the CBW Program with respect to GST/HST relief. However, the goods cannot be further processed in any manner, except to the extent reasonably necessary or incidental to their transportation.

Two issues arise when applying the ETH Program to distribution-business type activity. First, in order to limit the effects of the program on the general application of the tax, no processing is permitted. As a distribution business must have the ability to customize goods in response to a particular market or to meet a purchaser's specific requirements, the ETH Program is not suitable. Second, GST/HST relief is provided only with respect to domestically-acquired goods and does not apply to taxes payable on imports.

This program is of little assistance to distribution businesses that frequently import goods on behalf of non-resident businesses, warehouse them and ultimately deliver them to the final purchaser.

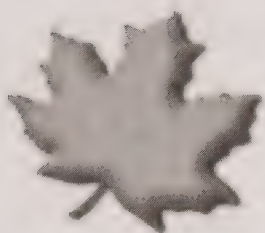
⁵ A complete list of acceptable activities can be found in section 3 of Part I of the Customs Bonded Warehouses Regulations.

Other GST/HST Mechanisms

A number of other legislative mechanisms exist to provide GST/HST relief in the import and export areas. However, these provisions are limited in application and are designed to apply to particular types of common business practices.

The Drop Shipment Rules allow sales to non-residents of goods bound for export and of services performed on those goods to be made on a tax-free basis, provided that the goods remain in the possession of Canadian service providers before export. The Drop Shipment Rules essentially facilitate the transfer of goods owned by non-residents between Canadian processors. It does not provide the type of relief suitable for the distribution business sector.

The Non-Taxable Importations Program permits tax-free importation of goods for the purpose of repair, maintenance or overhaul. This program is not open to Canadian suppliers who also supply property (e.g., components) with the service. Additionally, the Non-Taxable Importations Program is restricted to certain types of services (e.g., it clearly excludes distribution type activity).



TAX EXPENDITURES AND EVALUATIONS

2001



Department of Finance
Canada

Ministère des Finances
Canada



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PREFACE

As announced in 2000, the Tax Expenditures report is now separated into two documents. This document, *Tax Expenditures and Evaluations*, is being published on an annual basis. It provides estimates and projections for broadly defined tax expenditures as well as descriptive papers on tax expenditures.

This year's edition includes a paper entitled "Present-Value Tax Expenditure Estimates of Tax Assistance for Retirement Savings." This analysis was prepared in response to a request from the Auditor General for alternative estimates that would show the lifetime cost to the government of contributions made in a given year to tax-assisted retirement savings (TARS) plans. In contrast, the tax expenditure estimates for TARS plans published in previous editions of this document are measured on a cash-flow basis. These estimates capture the loss of tax revenue in a given year associated with contributions and withdrawals in that year as well as foregone tax revenue on accumulated investment income on all past contributions. The two sets of estimates provide complementary information and both will be presented in this document, starting with this edition.

The companion document, *Tax Expenditures: Notes to the Estimates/Projections*, was published last year. It should be used as a reference document by readers who wish to know more about how the tax expenditures/projections are calculated or by readers who seek information on the objectives and descriptions of particular tax expenditures. New tax expenditures are described in the relevant section of this document.

Part 1

**TAX EXPENDITURES:
ESTIMATES AND PROJECTIONS**

ESTIMATES AND PROJECTIONS OF TAX EXPENDITURES

While there is agreement on the conceptual definition of tax expenditures, there is no widely accepted operational methodology for estimating them. A range of methodologies exists internationally, some restrictive, others very broad. The broadest of the available options is to estimate tax expenditures as all deviations from a benchmark tax system. Typically, these deviations take the form of exemptions, deductions, rate reductions, rebates, credits, deferrals and carry-overs.

The approach used in this document is to provide as much information as possible to the reader by reporting any deviation from a very basic benchmark system. This allows the reader to decide whether or not a particular item qualifies as a tax expenditure. These deviations from the tax system are reported in two parts: one includes a list of all items that could be considered tax expenditures under a very broad definition; all other deviations from the benchmark tax system are reported as memorandum items.

Caveats

Care must be taken in interpreting the estimates and projections of tax expenditures in the tables for the following reasons.

- Tax expenditures are values of tax revenues forgone to achieve a variety of economic and social objectives. Whether or not the magnitudes of tax expenditures are appropriate depends upon an evaluation of the underlying social and economic policies. The values reported in the tables provide no information to permit such an evaluation.
- The cost of each tax measure is estimated separately, assuming that all other tax provisions remain unchanged. Many of the tax expenditures do, however, interact with each other, so the impact of several tax provisions at once cannot generally be calculated by adding up the estimates for each provision.
- The estimates assume all other factors remain unchanged (i.e., there is no allowance for behavioural changes, consequential government policy changes or changes in aggregate economic activity in response to the change in the tax expenditure).
- In addition to these considerations, the projections are subject to forecast error and are “best efforts” that have the same degree of reliability as the variables that explain them.
- The federal and provincial income tax systems interact with each other to various degrees. As a result, changes to tax expenditures in the federal system may have consequences for provincial tax revenues. In this publication, however, any such provincial effects are not taken into account – that is, the tax expenditure estimates address strictly the federal tax system.
- In the case of the harmonized sales tax in effect in Nova Scotia, New Brunswick, and Newfoundland and Labrador, only the federal cost of the tax expenditures is reported.

It should also be noted that, on occasion, the estimated or projected change in the value of a tax expenditure in this report does not coincide with the fiscal impact of a measure estimated in the budget. For example, this report shows that the cost of the partial inclusion rate for capital gains increased by \$1 billion between 2000 and 2001. This increase is due to the reduction in the inclusion rate from three-quarters to two-thirds announced in the 2000 budget and the subsequent reduction to 50 per cent announced in the October 2000 Economic Statement and Budget Update. However, the economic statement estimated that together these two changes would cost only \$300 million more for that same period. For a defined set of transactions, the reductions in the capital gains inclusion rate *raise* tax expenditures and *lower* budgetary revenues by the same amount. But the lower inclusion rate is expected to induce additional realizations, which increases both revenue and the tax expenditure. In other words, the rate reduction and the additional realizations have offsetting impacts on budgetary revenues (estimated in the budget) while they both raise the tax expenditure estimate (reported in this document).

A second example is the change in the partial exemption of scholarship, fellowship and bursary income that was also announced in the 2000 budget. The cost of this change was estimated at \$30 million for the 2000 tax year. In contrast, the associated tax expenditure provided in this document shows an increase of only \$21 million in 2000 compared to the previous year (to \$27 million from \$6 million). In this case, the apparent disparity is largely a matter of presentation. The total cost of this measure shown in the budget is spread over two or more categories in the *Tax Expenditures* report. The 2000 budget estimate of \$30 million consists of the additional \$21 million that will be claimed by students and a further \$9 million that will either be carried forward or transferred to parents and claimed by them. These amounts are shown separately in the *Tax Expenditures* report.

WHAT'S NEW IN THE 2001 REPORT

The October 2000 Economic Statement and Budget Update, as well as other announcements during the past year, made a number of changes which affect the value of tax expenditures. Of particular note are the changes in both personal and corporate tax rates that determine the benchmark against which tax expenditures are measured. These rate changes, therefore, affect a large number of tax expenditures. A tax-rate reduction lowers the value of tax expenditures in the year the change is introduced but this is generally followed by growth in their value over time in line with increases in the size of incomes. These changes, together with others that affect specific tax expenditures, are described below.

Personal Income Tax

Reduction of personal income tax rates effective January 1, 2001

- The 17-per-cent rate was reduced to 16 per cent.
- The 24-per-cent middle tax rate – reduced from 26 per cent in the 2000 budget – was reduced further to 22 per cent.
- The 29-per-cent top tax rate was reduced to 26 per cent on incomes between about \$60,000 and \$100,000.
- The top tax rate of 29 per cent applies to incomes in excess of \$100,000.
- The deficit-reduction surtax was eliminated.

Increased assistance for those who need it most

- Effective July 2001, the Canada Child Tax Benefit for low- and middle-income Canadians increased by an additional \$100 per child over the \$200-per-child increase in the 2000 budget. Combined with indexation, these increases will bring the maximum benefits for the first child to more than \$2,500 by 2004.
- Effective January 2001, the disability tax credit amount was raised to \$6,000 from \$4,293.
- Effective January 2001, the credit amount for caregivers of dependent relatives who are elderly, infirm or disabled was raised to \$3,500 from \$2,386.

Enhancement of measures to reward entrepreneurship and innovation

- The capital gains inclusion rate reduced from three-quarters to two-thirds on February 28, 2000 – was cut further to one-half on October 18, 2000. Consistent with this change, the deduction for employee stock options was increased from one-third to one-half.
- Tax-free rollovers were expanded and made available to more businesses. The size of eligible investment increased to \$2 million from \$500,000 and the size of businesses eligible for the rollover increased to \$50 million in assets from \$10 million.

Increased assistance to students

- Effective January 1, 2001, the education amount on which the education credit is based doubled from \$200 to \$400 per month for eligible full-time students and from \$60 to \$120 per month for eligible part-time students.

New measures to encourage growth and job creation

- Effective January 1, 2001, self-employed individuals may deduct the portion of Canada Pension Plan (CPP) and Quebec Pension Plan (QPP) contributions that represents the employer's share (measure described in detail below).
- A temporary investment tax credit is provided at a rate of 15 per cent for specified mineral exploration expenses incurred in Canada pursuant to a flow-through share agreement. The flow-through share investor will be able to use this tax credit to reduce federal tax otherwise payable on eligible expenses incurred prior to 2004 (measure described in detail below).

Political contribution tax credit

- For 2000 and subsequent years, the political contribution tax credit is earned at a rate of 75 per cent on the first \$200 contributed (previously \$100), 50 per cent on the next \$350 (previously \$450) and 33 1/3 per cent on the next \$525 (previously \$600). The maximum credit is \$500 and is available when the taxpayer has contributed \$1,075.

Business Income Tax

Legislated timetable for rate reductions

- The October 2000 Economic Statement and Budget Update set out a timetable for fulfilling the government's commitment to reduce, by 2004, the federal corporate income tax on business income not currently eligible for special tax treatment, from 28 to 21 per cent.¹ Specifically, the federal corporate income tax rate, which was reduced by one percentage point from 28 to 27 per cent, effective January 1, 2001, as part of the February 2000 budget, will be further reduced by two points for each of the next three years to 21 per cent in 2004.

Reduced capital gains inclusion rate

- The capital gains inclusion rate – reduced from three-quarters to two-thirds on February 28, 2000 – was cut further to one-half on October 18, 2000.

¹ This lower rate does not apply to mutual fund corporations, mortgage investment corporations, investment corporations, small business and Canadian manufacturing and processing income, and investment income that benefits from refundable tax provisions. Nor does the reduction apply to income from non-renewable natural resource activities. The government is consulting on options to extend the lower income tax rate to the resource sector while at the same time improving the tax structure.

Political contribution tax credit

- For 2000 and subsequent years, the political contribution tax credit is earned at a rate of 75 per cent on the first \$200 contributed (previously \$100), 50 per cent on the next \$350 (previously \$450) and 33 1/3 per cent on the next \$525 (previously \$600). The maximum credit is \$500 and is available when the corporation has contributed \$1,075.

Non-deductibility of advertising expenses in foreign media

- Pursuant to the Canada-U.S. agreement of June 3, 1999, expenses for advertisements published in issues of periodicals after May 2000 that contain at least 80 per cent original editorial content are fully deductible, and advertising expenses in other periodicals are 50 per cent deductible. Previously, the deduction of such advertising expenses was precluded to the extent that the expenses were incurred for advertisements directed at the Canadian market in periodicals that did not meet certain Canadian ownership criteria.

Surtax on the profits of tobacco manufacturers

- Tobacco manufacturers are subject to a special surtax on their profits. The surtax rate has been increased from 40 per cent to 50 per cent of the Part I tax on profits from tobacco manufacturing, effective April 6, 2001.

DESCRIPTION OF NEW TAX EXPENDITURES

Two tax provisions have been introduced since the companion document, *Tax Expenditures: Notes to the Estimates/Projections*, was last published. They are:

Employment

Canada and Quebec pension plan deduction for the self-employed

Objective: This measure ensures that self-employed individuals are not disadvantaged relative to an owner-operator who is also an employee of the corporation. (*Economic Statement and Budget Update*, October 2000)

Under the Canada Pension Plan and Quebec Pension Plan (C/QPP), self-employed individuals are required to pay both the employer and employee portions of C/QPP contributions. As of January 1, 2001, self-employed individuals are permitted to deduct the portion of C/QPP contributions that represents the employer's share.

Small Business

Federal tax credit for flow-through share investors

Objective: To promote mineral exploration activity, particularly in rural communities across Canada that depend on mining. (*Economic Statement and Budget Update*, October 2000)

This temporary investment tax credit is available to individuals (other than trusts) at a rate of 15 per cent of specified surface “grass root” mineral exploration expenses incurred in Canada pursuant to a flow-through share agreement. The flow-through share investor will then be able to use this tax credit to reduce federal tax otherwise payable. This new credit will apply to specified expenses incurred by an individual pursuant to a flow-through share agreement made after October 17, 2000, in respect of expenses incurred by the corporation after that day and before 2004. This non-refundable credit will reduce the cumulative Canadian exploration expense pool for years following the year in which it is claimed.

THE TAX EXPENDITURES

Tables 1 to 3 provide tax expenditure values for personal income tax, corporate income tax and the goods and services tax (GST/HST) for the years 1996 to 2003.

Estimates and projections are developed using the methodology set out in Chapter 1 of the companion document, *Tax Expenditures: Notes to the Estimates/Projections*.² In this case, however, the economic variables used to develop the projections are based on the private sector average forecast presented in the May 2001 Economic Update.

Personal income tax expenditures are grouped according to functional categories. This grouping is provided solely for presentational purposes and is not intended to reflect underlying policy considerations.

All estimates are reported in millions of dollars. The letter “S” indicates that the cost is less than \$2.5 million while “n.a.” signifies that data are not available. The inclusion in the report of items for which estimates are not available is warranted given that the report is designed to provide information on the type of assistance delivered through the tax system even if it is not always possible to provide a quantitative estimate.

Work is continuing to obtain quantitative estimates where possible. For example, in the past, data were not available on the tax expenditure provided to registered charities and non-profit organizations (NPOs), since they did not file a tax return. However, NPOs have been required since January 1, 1993, to submit information returns to the Canada Customs and Revenue Agency (CCRA) if their income exceeds \$10,000 or their assets exceed \$200,000. With a number of years of data from the NPO returns now available, it has become possible to produce a tax expenditure estimate for NPOs for the first time. As this is not the case for registered charities, the heading “Non-Taxation of Registered Charities and Other Non-Profit Organizations” has now been broken down in the 2001 publication.

A further example is Oil Sands Tax Expenditures. A more detailed examination of this subject has been undertaken and is available in working paper 2001-17, “Oil Sands Tax Expenditures,” on the Department of Finance Web site.³ The results in this study supplement the analysis reported on pages 75-81 in the 2000 *Tax Expenditures: Notes to the Estimates/Projections* document.

² Available on the Department of Finance Web site at <http://www.fin.gc.ca>.

³ Department of Finance Web site: <http://www.fin.gc.ca/activty/wp-dt/2001-17e.html>.

Table 1

Personal income tax expenditures*†

	Estimates			Projections		
	1996	1997	1998	1999	2000	2001 2002 2003
	(\$ millions)					
Culture and recreation						
Deduction for clergy residence	58	58	55	55	53	50 50 50
Deduction for certain contributions by individuals who have taken vows of perpetual poverty	S	S	S	S	S	S S S
Write-off of Canadian art purchased by unincorporated businesses	n.a.	n.a.	n.a.	n.a.	n.a.	n.a. n.a. n.a.
Assistance for artists	n.a.	n.a.	n.a.	n.a.	n.a.	n.a. n.a. n.a.
Deduction for artists and musicians	n.a.	n.a.	n.a.	n.a.	n.a.	n.a. n.a. n.a.
Non-taxation of capital gains on gifts of cultural property	n.a.	7	11	11	10	7 7 7
Education						
Tuition fee credit ¹	210	240	260	260	260	225 230 240
Education credit ²	55	77	120	120	115	200 205 210
Education and tuition fee credits transferred ^{3,4}	260	300	335	340	345	460 475 485
Carry-forward of education and tuition fee credits ⁵	—	—	10	75	145	255 320 380
Student loan interest credit ⁶	—	—	46	45	45	42 42 42
Registered education savings plans (RESPs) ⁷	35	32	33	43	71	98 130 160
Partial exemption of scholarship, fellowship and bursary income ⁸	6	5	6	6	27	23 23 23
Deduction of teachers' exchange fund contributions	S	S	S	S	S	S S S

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the companion document, *Tax Expenditures: Notes to the Estimates/Projections*, published in 2000 and also available on the Department of Finance Web site (<http://www.fin.gc.ca>) for a discussion of the reason for this.

† Budget 2000 fully indexed, effective January 1, 2000, those parameters that were previously only partially indexed. The 2000 budget also introduced full indexation of the income threshold at which tax rates begin to apply. These measures represent a change in the benchmark tax system and, consequently, there is no tax expenditure associated with indexation.

The *Economic Statement and Budget Update* of October 2000 reduced all personal income tax rates and eliminated the deficit reduction surtax, effective January 1, 2001. These rate reductions lower the value of exemptions and deductions, as well as those non-refundable tax credits whose values depend on a tax rate, in the year the change is introduced but this is generally followed by growth in their value over time in line with increases in the size of incomes.

Personal income tax expenditures (cont'd)

	Estimates			Projections		
	1996	1997	1998	1999	2000	2001
	(\$ millions)					
Employment						
Canada and Quebec pension plan deduction for the self-employed ⁹	-	-	-	-	-	-
Deduction of home relocation loans	S	S	S	S	S	S
Non-taxation of allowances to volunteer firefighters ¹⁰	4	4	-	-	-	-
Tax-free amount for emergency service volunteers ¹⁰	-	-	14	14	14	14
Northern residents deductions	125	130	135	130	130	120
Overseas employment credit	44	37	62	62	63	63
Employee stock options ¹¹	125	200	215	215	285	420
Non-taxation of strike pay	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of salary through leave of absence/sabbatical plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Employee benefit plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of certain non-monetary employment benefits	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Family						
Spousal credit ^{12,13}	1,190	1,155	1,100	1,180	1,290	1,350
Equivalent-to-spouse credit ^{12,13}	470	425	430	450	485	495
Infirm dependant credit ^{13,14}	7	7	7	7	7	10
Caregiver credit ^{13,14,15}	-	-	24	24	24	31
Canada Child Tax Benefit ^{13,16}	5,235	5,325	5,625	5,930	6,370	7,825
Deferral of capital gain through transfers to a spouse, spousal trust or family trust	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Table 1

[illegible]

Table 1

Personal income tax expenditures (cont'd)

	Estimates			Projections			
	1996	1997	1998	1999	2000	2001	2002 2003
	(\$ millions)						
Health							
Non-taxation of business-paid health and dental benefits ²⁵	1,490	1,625	1,650	1,700	1,690	1,560	1,575 1,585
Disability tax credit ^{13,26}	265	270	265	265	305	385	390 390
Medical expense credit ^{13,27}	330	355	405	430	460	465	505 550
Medical expense supplement for earners ^{13,28}	—	39	42	47	51	63	66 69
Income maintenance and retirement							
Non-taxation of guaranteed income supplement and spouse's allowance benefits ²⁹	300	290	290	275	270	260	270 280
Non-taxation of social assistance benefits ²⁹	560	455	395	350	330	295	285 275
Non-taxation of workers' compensation benefits	620	630	620	610	610	570	570 570
Non-taxation of amounts received as damages in respect of personal injury or death	18	18	17	17	17	15	15 15
Non-taxation of veterans' allowances, civilian war pensions and allowances, and other service pensions (including those from Allied countries)	3	S	S	S	S	S	S S
Non-taxation of veterans' disability pensions and support for dependants ³⁰	155	155	155	155	150	140	140 140
Treatment of alimony and maintenance payments ³¹	250	240	215	195	185	175	175 175
Age credit ¹³	1,320	1,350	1,350	1,310	1,310	1,265	1,305 1,345
Pension income credit	365	385	405	405	405	385	395 405
Saskatchewan Pension Plan	S	S	S	S	S	S	S S
Registered retirement savings plans (RRSPs)	5,940	6,635	6,560	6,695	6,985	6,765	7,265 7,795
Deduction for contributions ³²	3,095	3,070	3,150	4,190	3,945	4,290	4,740 5,235
Non-taxation of investment income ³³	-2,190	-2,425	-2,795	-3,030	-3,290	-3,185	-3,475 -3,785
Taxation of withdrawals	6,845	7,280	6,915	7,855	7,640	7,870	8,530 9,245
Net expenditure ³⁴							

Table 1
Personal income tax expenditures (cont'd)

	Estimates			Projections			
	1996	1997	1998	1999	2000	2001	2002
	(\$ millions)						
Registered pension plans (RPPs)							
Deduction for contributions ³²	4,930	5,170	4,490	4,530	4,420	4,005	4,055
Non-taxation of investment income ³³	8,015	8,305	8,200	10,645	9,280	9,325	9,575
Taxation of withdrawals ³²	-4,905	-5,540	-5,985	-6,605	-7,090	-7,140	-7,905
Net expenditure ³⁴	8,040	7,935	6,705	8,570	6,610	6,190	5,725
Supplementary Information:							
Present-value of tax assistance to RRSPs and RPPs ^{35,36}	7,420	7,630	7,125	7,170	7,290	6,880	7,185
Deferred profit-sharing plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of RCMP pensions/compensation in respect of injury, disability or death ³⁷	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of up to \$10,000 of death benefits	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of investment income on life insurance policies ³⁸	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Small business							
\$500,000 lifetime capital gains exemption for small business shares ¹⁷	475	545	650	655	565	375	385
Deduction of allowable business investment losses ^{17,39}	74	56	61	63	64	60	61
Labour-sponsored venture capital corporations credit ^{40,41}	91	79	130	185	260	260	260
Deferral through 10-year capital gain reserve ^{17,21}	-5	13	13	7	6	5	5
Rollovers of investments in small businesses ⁴²	-	-	-	-	125	125	125
Federal tax credit for flow-through share investors ⁴³	-	-	-	-	-	38	44

Table 1

Personal income tax expenditures (cont'd)

	Estimates			Projections				
	1996	1997	1998	1999	2000	2001	2002	2003
	(\$ millions)							
Other items								
Non-taxation of capital gains on principal residences ⁴⁴								
Partial inclusion rate ⁴⁵	1,260	1,335	980	1,170	1,025	805	805	805
Full inclusion rate	1,675	1,775	1,305	1,565	1,570	1,615	1,615	1,615
Non-taxation of income from the Office of the Governor General	S	S	S	S	S	S	S	S
Assistance for prospectors and grubstakers	S	S	S	S	S	S	S	S
Charitable donations credit ⁴⁵	1,120	1,180	1,300	1,310	1,310	1,290	1,320	1,350
Reduced inclusion rate for capital gains arising from donations of ecologically sensitive land ⁴⁶	-	-	-	-	n.a.	n.a.	n.a.	n.a.
Reduced inclusion rate for capital gains arising from certain charitable donations ⁴⁷	-	6	6	13	19	26	-	-
Political contribution credit	11	16	10	10	10	11	11	11
Special tax computation for certain retroactive lump-sum payments ⁴⁸	10	10	10	10	10	10	10	10
Non-taxation of income of Indians on reserves	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of gifts and bequests	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Memorandum items								
Non-taxation of lottery and gambling winnings ^{49,50}	1,380	3,290	4,245	4,240	4,195	3,855	3,905	3,930
Non-taxation of specified incidental expenses	5	4	4	5	5	4	4	4
Non-taxation of allowances for diplomats and other government employees posted abroad	8	8	8	8	7	7	7	7
Child care expense deduction ⁵¹	420	405	435	430	435	390	390	390
Attendant care expense deduction	S	S	S	S	S	S	S	S
Moving expense deduction ⁵²	64	61	76	78	78	73	73	73
Deduction of carrying charges incurred to earn income	590	580	750	780	800	770	815	855
Deduction of meals and entertainment expenses	130	86	86	88	88	82	82	82
Deduction of farm losses for part-time farmers	57	58	59	59	58	54	54	54
Farm and fishing loss carry-overs	10	9	8	8	8	7	7	7
Capital loss carry-overs	160	175	145	145	145	125	130	135
Non-capital loss carry-overs	100	86	98	100	100	92	94	97

Table 1
Personal income tax expenditures (cont'd)

	Estimates			Projections			
	1996	1997	1998	1999	2000	2001	2002 2003
	(\$ millions)						
Logging tax credit	S	S	S	S	S	S	S
Deduction of resource-related expenditures	170	175	150	155	155	145	150 155
Reclassification of flow-through shares ⁵³	36	40	17	21	25	23	23
Deduction of other employment expenses	585	620	685	700	705	665	685 705
Deduction of union and professional dues	510	525	540	560	565	525	540 560
Employment insurance							
Employment insurance contribution credit	1,260	1,405	1,340	1,275	1,215	1,095	1,095 1,075
Non-taxation of employer-paid premiums	2,610	2,935	2,795	2,700	2,540	2,210	2,215 2,160
Canada and Quebec Pension Plans ⁵⁴							
Canada/Quebec Pension Plan credit ⁵⁵	1,195	1,155	1,335	1,490	1,690	1,945	2,195 2,385
Non-taxation of employer-paid premiums	1,550	1,695	2,000	2,265	2,535	2,625	2,960 3,215
Foreign tax credit ⁵⁶	300	345	505	510	520	530	540 550
Dividend gross-up and credit	815	895	1,030	1,100	1,190	1,295	1,410 1,540
Supplementary low-income credit ⁵⁷	—	—	135	130	—	—	—
Basic personal credit ^{13,58}	17,885	18,165	18,120	18,965	20,255	19,575	20,265 20,940
Non-taxation of capital dividends	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a. n.a.

Notes:

¹ The 1997 budget extended this credit to most mandatory ancillary fees imposed by post-secondary institutions, beginning in 1997.

² The 1996 budget increased this credit from \$80 to \$100 per month, beginning in 1996. The 1997 budget increased it to \$150 per month for 1997 and \$200 per month thereafter. The 1998 budget allowed part-time students to claim a part-time education amount of \$60 per month. The October 2000 *Economic Statement and Budget Update* increased the credit to \$400 per month for full-time students and \$120 per month for part-time students, effective January 1, 2001.

³ The 1996 budget increased from \$4,000 to \$5,000 the limit on the transfer of these amounts, beginning in 1996.

⁴ Changes in these estimates from last year's publication reflect improvements in the methodology used to calculate them. The increase from \$345 million in 2000 to \$460 million in 2001 is largely explained by the doubling of the education amount announced in the October 2000 *Economic Statement and Budget Update*. Since most students do not have sufficient income to use this increased amount, this significantly increases transfers to supporting relatives.

⁵ The 1997 budget introduced this measure, effective for 1997 and subsequent years. It is assumed that tax filers will begin to claim the credits carried forward beginning the year after they are earned. The lower estimate for 1998 relative to last year's publication reflects lower than anticipated take-up of this measure in its first year. The increase after 2001 is largely due to the doubling of the education credit which increases the extent to which students carry forward these credits.

- ⁶ The 1998 budget introduced this measure, effective for 1998 and subsequent years. The decrease in the projections relative to last year's publication reflects recently available 1998 income tax data on the take-up of this measure.
- ⁷ The 1998 budget supplemented annual contributions to RESPs with a 20-per-cent grant, the Canada Education Savings Grant, beginning in 1998. While this enhancement does not represent a tax expenditure, it increases the cost of the tax expenditure to the extent that it encourages participation in the RESP program. The decrease in the projections relative to last year's publication reflect recently available data on RESPs.
- ⁸ The 2000 budget raised the exemption for scholarship, fellowship and bursary income from \$500 to \$3,000 for students eligible for the education credit. In addition, for 2000 and later tax years, the tax expenditure reflects the additional funds made available to students under the Millennium Scholarship Fund.
- ⁹ This measure was introduced in the October 2000 *Economic Statement and Budget Update*, effective 2001. The tax expenditure estimates the incremental cost of allowing self-employed individuals to deduct the employer share of their Canada/Quebec pension plan contributions paid for their own coverage, relative to a benchmark system in which no such deduction is provided. Prior to this measure, self-employed individuals could claim a non-refundable credit on this share of their Canada/Quebec pension plan contributions. As a result, the actual cost of the change is lower than given by the tax expenditure.
- ¹⁰ The 1998 budget replaced the \$500 tax-free allowance for volunteer firefighters with an exemption of up to \$1000 for emergency service volunteers. The tax expenditure estimate for the emergency service volunteer exemption includes claims by firefighters after 1997.
- ¹¹ This tax expenditure reflects only the stock option deduction and not the deferral from income inclusion. The increase in this tax expenditure in 1997 reflects a 65-per-cent increase in the number of claimants. The 2000 budget increased the stock option deduction from one-quarter to one-third. The October 2000 *Economic Statement and Budget Update* further increased this deduction from one-third to one-half.
- ¹² The 1999 budget increased this tax credit by \$675 for all taxpayers, beginning July 1, 1999.
- ¹³ The 2000 budget introduced full indexation of this tax credit effective January 1, 2000.
- ¹⁴ The October 2000 *Economic Statement and Budget Update* increased the amount on which this credit is based from \$2,386 to \$3,500 for 2001.
- ¹⁵ The 1998 budget introduced this measure.
- ¹⁶ The 1996 through 2000 budgets and the October 2000 *Economic Statement and Budget Update* increased this tax benefit. Payments made between January and December of the year are reported. The 2000 budget fully indexed the Canada Child Tax Benefit (CCTB) starting January 2000. The 2000 budget and the October 2000 *Economic Statement and Budget Update* scheduled increases above and beyond indexation for the CCTB base benefit in July 2000 and for the NCB supplement in July 2001. Despite these program enhancements, CCTB tax expenditure projections have fallen relative to last year's publication. This reflects the higher than expected income growth in 1998, the year on which this publication's projections are based. High income growth resulted in more families with children earning higher family net incomes, which in turn placed them in the income ranges at which benefits are reduced.
- ¹⁷ The 2000 budget reduced the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000. The October 2000 *Economic Statement and Budget Update* further reduced the capital gains inclusion rate from two-thirds to one-half, effective October 18, 2000. The decline in this tax expenditure after 1999 reflects, in part, reductions to this inclusion rate.
- ¹⁸ NISA data on this tax expenditure is available up to 2000. The deferral of tax on government contributions is highly volatile and, beyond 2000, is projected at its historical average. For the deferral of tax on bonus and interest income, the decline between 2000 and 2001 is due to the fall in tax rates.
- ¹⁹ Until last year's publication, estimates of this tax expenditure were based on data provided by the Canadian Wheat Board, which included cash purchase tickets for wheat and barley. As of this year's publication, these estimates are based on Statistics Canada data, available up to 1999, which include cash purchase tickets for wheat, barley, oats, canola, flax and rye. Beyond 1999 the projections are historical averages because of the volatility of this series.
- ²⁰ The increase in the value of this tax expenditure for 1997 reflects a 33-per-cent increase in the amount of taxable capital gains reported in that year and a 30-per-cent increase in the number of claimants. The 2000 budget reduced the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000. The

October 2000 *Economic Statement and Budget Update* further reduced the capital gains inclusion rate from two-thirds to one-half, effective October 18, 2000. Increases in this tax expenditure after 1999 reflect these reductions to the capital gains inclusion rate as well as anticipated increases in capital gains realizations resulting from changes to this measure.

²¹ This tax expenditure is highly volatile. It is projected at its historical average.

²² This tax expenditure does not include measures in the 2000 budget or the October 2000 *Economic Statement and Budget Update* for rollovers of eligible small business investments.

²³ This tax expenditure includes the deduction of scientific research and experimental development expenditures. Data are not available to estimate this tax expenditure with precision.

²⁴ The 2000 budget amended the rules so that the \$1,000 deemed adjusted cost base, and deemed proceeds of disposition for personal-use property will not apply if the property is acquired after February 27, 2000, as part of an arrangement in which the property is donated as a charitable gift.

²⁵ The 1998 budget allowed unincorporated owner-operators to deduct premiums for supplementary health care coverage against their business income to a maximum amount, beginning in 1998. Statistics Canada and Canadian Life and Health Insurance Association data used to estimate their tax expenditure are available up to 1998 and 1999 respectively.

²⁶ The 2000 budget enhanced the disability tax credit (DTC) by extending eligibility for the DTC to individuals requiring extensive therapy, and by expanding the list of relatives to whom the DTC can be transferred. The 2000 budget also provided a supplement of up to \$500 for children eligible for the DTC. The October 2000 *Economic Statement and Budget Update* increased the amount on which the DTC is based from \$4,293 to \$6,000 effective 2001.

²⁷ The 1997 budget broadened this credit to cover additional expenses, beginning in 1997. The 1999 budget further broadened this credit for the care and education of persons with disabilities, beginning in 1999.

²⁸ This measure was introduced in the 1997 budget.

²⁹ The projected decline in this tax expenditure after 1997 reflects changes in the 1998 to 2000 budgets and the October 2000 *Economic Statement and Budget Update* to reduce tax rates on low-income individuals (e.g., increases in the personal amounts and the reduction in the low-income tax rate).

³⁰ Public Accounts data used for this tax expenditure are available up to 1999.

³¹ The 1996 budget eliminated the income inclusion for recipients of child support payments, and disallowed the deduction to payers, for agreements made after April 30, 1997.

³² Revisions in estimates for 1997 reflect a change in the calculation of effective average tax rates.

³³ Projected values for this tax expenditure are higher for 1999 than those provided in last year's publication due to higher-than-expected interest rates for that year. In addition, for other years, the estimates are lower due to lower-than-expected interest rates in those years.

³⁴ Net expenditure represents the total tax expenditure associated with this measure.

³⁵ These estimates are being introduced this year and will be provided in future reports. The present-value estimates reflect the lifetime cost of a given year's contributions. This definition is different from that used for the cash-flow estimates and thus the two sets of estimates are not directly comparable. Further information on how these estimates are calculated is contained in the paper "Present-Value Tax Expenditure for Tax Assisted Retirement Savings," contained in this report.

³⁶ The tax expenditure per dollar of contributions is relatively stable from 1997 to 2000, then it drops sharply in response to lower tax rates. This causes the total value of the tax expenditure to fall in 2001, despite a rise in contributions. By 2003, however, strong growth in contributions is projected to raise the value of the tax expenditure above its level in 2000.

- ³⁷ The amounts reported in previous years for this tax expenditure included taxable amounts and did not cover all non-taxable RCMP pensions. This tax expenditure cannot be estimated with precision.
- ³⁸ Although this measure does provide tax relief for individuals, it is implemented through the corporate tax system. See the corporate income tax expenditure section of this report for an estimate of the value of this tax expenditure.
- ³⁹ The fall between 2000 and 2001 reflects the reduction in the capital gains inclusion rate announced in the 2000 budget and in the October 2000 *Economic Statement and Budget Update*.
- ⁴⁰ The 1996 budget reduced this credit from 20 per cent to 15 per cent and the purchase amount eligible for the credit from \$5,000 to \$3,500 per year, for purchases made after March 5, 1996. The purchase amount eligible for the credit was increased to \$5,000 in 1998, effective for 1998 and subsequent years.
- ⁴¹ The decline in the value of this expenditure in 1997 reflects a decline in the number of claimants and in the average claim in that year, resulting from Budget 1996 changes to the credit. The increase in the value of this expenditure for 1998 reflects a 30-per-cent increase in the number of claimants and a 25-per-cent increase in the average claim in that year. The values of this tax expenditure in 1999 and 2000 are based on preliminary information on sales of shares of labour-sponsored venture capital corporations for those years. Projections assume sales remain constant after 2000.
- ⁴² This provision was introduced in the 2000 budget. The October 2000 *Economic Statement and Budget Update* expanded this measure by increasing the size of small businesses eligible for the rollover, and by raising the eligible investment limit from \$500,000 to \$2 million.
- ⁴³ This measure was introduced in the October 2000 *Economic Statement and Budget Update*. This new non-refundable investment tax credit will be available to individuals (other than trusts) at the rate of 15 per cent of specified mineral exploration expenses incurred in Canada pursuant to a flow-through share agreement. The flow-through share investor will then be able to use this tax credit to reduce federal tax otherwise payable, and will be applicable to eligible expenses occurred after October 17, 2000 and before 2004. These estimates differ from those in the *Economic Statement and Budget Update* since tax expenditure estimates are based on the calendar year whereas the budget update estimates were on a fiscal year basis.
- ⁴⁴ The decline in this tax expenditure in 1998 reflects a decline in the volume of home sales and in the average home value. The decline in the partial inclusion rate projections after 1999 reflects the reduction in the capital gains inclusion rate from three-quarters to two-thirds, effective February 18, 2000, and from two-thirds to one-half, effective October 18, 2000.
- ⁴⁵ This tax expenditure includes both gifts to the Crown and donations to other charities, as they were treated equivalently in the ITA beginning in 1997.
- ⁴⁶ This measure was proposed in the 2000 budget. No data are currently available.
- ⁴⁷ This measure was introduced in the 1997 budget for a five-year experimental period and will be reviewed this year. The 1997 to 1999 figures are based on income tax data. Consistent with the methodology of tax expenditures, these estimates assume that the measure did not bring forth any incremental donations. They therefore do not measure the full fiscal cost of the measure. Consistent with the legislated expiration of the measure at the end of 2001, no amount is estimated for 2002 or 2003. The lower figures for tax years 2000 and 2001 relative to last year's publication reflect the October 2000 *Economic Statement and Budget Update* announcement that reduced the capital gains inclusion rate from two-thirds to one-half, effective October 18, 2000.
- ⁴⁸ This provision was introduced in the 1999 budget, effective for qualifying retroactive lump-sum payments received after 1994. Cost estimates for 1996-1998 reflect the costs associated with qualifying payments received in those years, even though claims have not been processed before 2000.
- ⁴⁹ This estimate assumes that the total amount of lottery and horse racing winnings would be included in income and subject to tax. However, there is some uncertainty regarding the proper benchmark tax system in this area. For example, if the benchmark system included taxation of winnings, it would also have to include a deduction for the purchase cost of tickets. A threshold below which winnings would not be taxable may also be necessary, due to the large administrative cost of taxing very small prizes. In addition, proceeds from the sale of lottery tickets are an important source of funds for provincial governments and not-for-profit organizations. As a result, there is already an element of taxation to lottery and gambling proceeds. This estimate is therefore included as a memorandum item only.

⁵⁰ The increase in this tax expenditure after 1996 reflects the recent availability of data on casino and video lottery winnings, which Statistics Canada began collecting starting with fiscal year 1997/98.

⁵¹ The 1996 budget broadened eligibility criteria for claiming this deduction, beginning in 1996. The 1998 budget increased the maximum claim under this provision, and extended it to part-time students, beginning in 1998. The 2000 budget increased limits in respect of persons eligible for the Disability Tax Credit.

⁵² The 1998 budget enhanced the moving expense deduction by including certain costs of maintaining a vacant former residence (including mortgage interest and property taxes) and other miscellaneous relocation expenses.

⁵³ This tax expenditure applies to a subset of resource-related deductions. Data was available for 1996 to 1999 on the volume of re-classified shares, and this data was used to calculate estimates. Due to volatility, the projections for 2000 to 2003 are based on a three-year historical average, with the decline between 2000 and 2001 resulting from the decline in average tax rates.

⁵⁴ The October 2000 *Economic Statement and Budget Update* introduced a measure, effective 2001, allowing self-employed individuals to deduct the employer share of their Canada/Quebec pension plan contributions paid for their own coverage. Prior to the introduction of this measure, self-employed individuals could claim a non-refundable credit on this share of their Canada/Quebec pension plan contributions. The decline in these projections relative to last year's publication reflects this change.

⁵⁵ Changes in these estimates from last year's publication reflect improvements in the methodology used to calculate them.

⁵⁶ The expected increase in this tax expenditure is in line with the historical trend.

⁵⁷ This measure was introduced in the 1998 budget. The 1999 budget extended this measure to all taxpayers, effective July 1, 1999. The 1999 budget increased the tax expenditures associated with the basic personal credit and the spousal/equivalent-to-spouse credits and eliminated the supplementary low-income credit.

⁵⁸ From 1996 through 1998, the basic personal credit was \$6,456. The 1999 budget increased the basic personal credit by \$675, effective July 1, 1999, raising the value of the credit to \$7,131 (since this credit was implemented half-way through the year, the effective basic credit in the 1999 taxation year was \$6,794, or half the proposed annual increase). The 2000 budget fully indexed this credit, effective January 1, 2000, raising the value of this credit to \$7,231 for the 2000 taxation year and to \$7,412 for the 2001 taxation year.

Table 2
Corporate income tax expenditures**

	Estimates		Projections ¹					
	1996 ²	1997	1998	1999	2000	2001	2002	2003
	(\$ millions)							
Tax rate reductions								
Low tax rate for small businesses ³	2,585	2,820	2,880	3,255	4,045	3,910	3,515	3,215
Low tax rate for manufacturing and processing (M&P) ⁴	1,390	1,735	1,710	1,825	2,280	2,030	1,425	810
Low tax rate on general income of small businesses ⁵	-	-	-	-	-	65	80	50
Low tax rate for credit unions ⁶	41	41	39	43	48	46	41	36
Exemption from branch tax for transportation, communications, and iron ore mining corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemption from tax for international banking centres	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tax credits								
Investment tax credits								
Scientific research and experimental development investment tax credit	985	1,080	1,085	1,140	1,195	1,255	1,315	1,385
Atlantic investment tax credit ⁷	130	66	105	110	115	120	125	135
Investment tax credits carried back	87	62	79	84	90	95	100	110
Investment tax credits claimed in current year but earned in prior years	725	645	730	775	825	880	935	995
Political contribution tax credit	S	S	S	S	S	S	S	S
Canadian film or video production tax credit	43	78	87	97	105	110	115	120
Film or video production services tax credit ⁸	-	S	12	13	14	15	15	16

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the document entitled *Tax Expenditures: Notes to the Estimates/Projections*, published in 2000 and available on the Department of Finance Web site (<http://www.fin.gc.ca>), for a discussion of the reasons for this.

[†] The *Economic Statement and Budget Update* of October 2000 set out a timetable for fulfilling the government's commitment to reduce, by 2004, the federal corporate income tax on business income not currently eligible for special tax treatment, from 28 to 21 per cent. Including the corporate surtax, the tax rate used for the benchmark is reduced from 28.12 per cent for 2001 to 26.12 per cent for 2002, and 24.12 per cent for 2003. Since this measure represents a change in the benchmark tax system, there is no tax expenditure associated with this measure. This reduction in the benchmark rate reduces the value of exemptions, deductions and deferrals as well as non-refundable tax credits and tax reductions whose value depend on the benchmark rate.

Table 2

[illegible]

Table 2

Corporate income tax expenditures (cont'd)

	Estimates		Projections ¹					
	1996 ²	1997	1998	1999	2000	2001	2002	2003
	(\$ millions)							
International								
Non-taxation of life insurance companies' world income	n.a. ³	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemptions from non-resident withholding tax ¹⁷								
Copyright royalties	22	24	25	26	27	29	30	32
Royalties for the use of, or right to use, other property	49	52	54	57	60	63	66	69
Interest on deposits	365	390	405	410	420	415	415	430
Interest on long-term corporate debt	690	730	760	765	785	775	780	805
Dividends	110	140	140	155	170	185	205	225
Management fees	22	23	24	25	26	28	29	30
Exemption from Canadian income tax of income earned by non-residents from the operation of a ship or aircraft in international traffic	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Other items								
Transfer of income tax room to provinces in respect of shared programs	715	860	895	935	1,215	1,250	1,255	1,330
Interest credited to life insurance policies	74	75	79	81	84	87	90	93
Non-taxation of registered charities	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of other non-profit organizations (NPO) ¹⁸	92	86	89	94	100	105	105	105
Income tax exemption for provincial and municipal corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of certain federal Crown corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Aviation fuel excise tax rebate ¹⁹	—	n.a.	n.a.	n.a.	n.a.	—	—	—
Surtax on the profits of tobacco manufacturers ²⁰	-66	-68	-75	-70	-70	-80	-85	-85
Resource sector tax rate ²¹	—	—	—	—	—	n.a.	n.a.	n.a.
Temporary tax on the capital of large deposit-taking institutions ²²	-51	-55	-61	-63	-54	—	—	—
Memorandum items								
Refundable taxes on investment income of private corporations								
Additional Part I taxes ²³	-315	-500	-505	-520	-515	-510	-635	-800
Part IV tax	-1,030	-950	-965	-985	-1,035	-1,080	-1,120	-1,160
Dividend refund	1,510	1,740	1,765	1,805	1,875	1,895	1,955	2,025
Net expenditure	165	290	295	300	325	305	200	65

Table 2

[illegible]

Notes:

- ¹ Unless otherwise indicated in the footnotes, changes in the projections from those in last year's edition of this document result from changes in the explanatory economic variables upon which the projections are based.
- ² The 1996 figures are based on final data and may differ from the figures in last year's edition of this document, which were based on preliminary data.
- ³ The increase in the tax expenditure from 1998 to 2000 is attributable to a large increase in projected taxable income during this period. The decline in the tax expenditure starting in 2001 results from the reductions in the benchmark rate.
- ⁴ The increase from 1996 to 1997 reflects an increase in the level of M&P profits. The decline in the tax expenditure starting in 2001 results from the reductions in the benchmark rate.
- ⁵ This measure was announced in the 2000 budget and is effective January 1, 2001. The lower rate on general income of small businesses and the change in the benchmark federal tax rate effective January 1, 2001, only partially affect estimates for taxation year 2001 since many firms reporting income in the 2001 taxation year earned a portion of that income in the 2000 calendar year, before the rate reductions were introduced.
- ⁶ The estimates are lower after 2000 as a result of the phased-in reductions in the general corporate income tax rate.
- ⁷ The decrease in 1997 reflects a lower level of earned investment tax credit.
- ⁸ This measure was introduced in 1997.
- ⁹ The increase in the tax expenditure from 1996 to 1997 reflects an increase in capital gains. The increase in 2000 and 2001 reflects the net effect of a projected increase in capital gains and the reduction in the capital gains inclusion rate from three-quarters to one-half during 2000.
- ¹⁰ Estimates for the non-deductibility of Crown royalties and mining taxes and the resource allowance are highly dependent upon the level of activity in the resource industries. Major differences between the estimates prepared in 2000 and these estimates are due to higher prices for hydrocarbons (i.e. crude oil and natural gas) and increased production in 2000 and subsequent years. Improved data for prior years have also become available. Both series decline after 2001 to reflect the fact that hydrocarbon prices are expected to fall after reaching a peak in that year.
- ¹¹ The lower value for 1997 reflects new data received since the publication of the previous report. Additions to depletion pools were eliminated as of January 1, 1990. The declining value of this tax expenditure reflects the fact that these pools are being drawn down, albeit subject to any limitations imposed by the successor rules.
- ¹² This tax expenditure consists of the fast write-off of certain capital assets, including capital equipment used for scientific research and experimental development, of resource exploration and development expenditures and of energy conservation and efficiency equipment. See the document entitled *Tax Expenditures: Notes to the Estimates/Projections*, published in 2000 and available on the Department of Finance Web site (<http://www.fin.gc.ca>), for an explanation of why no figures have been calculated.
- ¹³ The amount of this tax expenditure can fluctuate from year to year depending on the amount of current-year losses and the availability of income against which to apply these losses.
- ¹⁴ The amount of this tax expenditure can fluctuate significantly from year to year depending primarily upon the level of construction activity.
- ¹⁵ The amount of this tax expenditure can fluctuate significantly from year to year depending upon advertising expenses claimed.
- ¹⁶ This measure was introduced in 1998.

¹⁷ Estimates were computed on the basis of an analysis of payments to non-residents and withholding tax collections available for 1999, the latest year for which complete data were available. Estimates in previous publications were based on similar data for the years 1992-94. Figures for 1996-98 and 2000-2003 are, respectively, backward and forward projections based on the 1999 estimates. These estimates and projections are based on the benchmark assumption that no behavioral response would occur after the hypothetical removal of existing withholding tax exemptions. This assumption is particularly difficult to sustain for this type of tax, as indicated in the document entitled *Tax Expenditures: Notes to the Estimates/Projections*, published in 2000 and available on the Department of Finance Web site (<http://www.fin.gc.ca>). Consequently, the amounts shown in the table should not be regarded as estimates and projections of the revenue gain that would be realized from the hypothetical removal of the listed withholding tax exemptions.

¹⁸ Data were previously unavailable for this expenditure. With a number of years of data now available from the NPO return (introduced from January 1, 1993), it has become possible to produce a tax expenditure estimate for NPOs for the first time.

¹⁹ This measure was effective for the years 1997 to 2000 inclusive.

²⁰ The increase in this tax expenditure from 2000 to 2002 results from the increase in the tobacco manufacturers' surtax from 40 per cent to 50 per cent of the Part I tax on profits from tobacco manufacturing, effective April 6, 2001.

²¹ Corporate income earned in the resource sector is taxed at 29.12%. The benchmark federal tax rate dropped to 28.12% on January 1, 2001, and will decline to 26.12%, 24.12%, and 22.12% on January 1, 2002, 2003, and 2004, respectively. The rate reductions will apply only to sectors that did not benefit from special tax preferences. The resource sector benefits from a number of such preferences (accelerated exploration and development expenses and fast write-offs for certain capital assets, the structure of the resource allowance) that act in conjunction to reduce the effective tax rate on this sector below comparable rates in other sectors, including manufacturing. Accurate measurement of estimates for the tax expenditures would require taking these interactions into account but this is not possible because of methodology and data constraints.

The Department has initiated consultations on options to extend the lower tax rate to this sector while at the same time improving the tax structure.

²² This measure was first introduced in the 1995 budget and extended in subsequent budgets. After a review of capital taxes levied on financial institutions, the temporary tax was not extended beyond its scheduled expiry date of October 31, 2000.

²³ This tax expenditure includes the additional 6 2/3 per cent refundable tax on investment income as well as, for years after 2000, the Part I tax paid on investment income in excess of the benchmark rate. The increase in this expenditure for 2002 and 2003 results from the increase in the difference between the Part I tax on investment income and the benchmark rate.

²⁴ New estimates are higher than previous publications, due to the availability of new data. The increase in the 1997 tax expenditure is due to a significant increase in the capital gains dividend distribution. The estimates are lower after 2000 to take into account the phased-in reduction in the general corporate income tax rate and the reduction in the capital gains inclusion rate.

²⁵ The impact of loss carry-overs can fluctuate significantly from year to year depending upon the amount of current and prior years' losses and the availability of income against which to apply these losses.

²⁶ Patronage dividends are somewhat discretionary and vary from year to year. The lower tax expenditure in 1997 reflects lower patronage dividend distributions. The estimates are lower after 2000 to take into account the phased-in reductions in the general corporate income tax rate.

²⁷ The change between last year's and this year's estimates reflects improvements in the underlying data and in the forecast of economic activity.

²⁸ The cost of the Syncrude Remission Order ("Order Respecting the Remission of Income Tax for the Syncrude Project," P.C. 1976-1026, May 6, 1976 [C.R.C. 1978 Vol. VII, c. 794]) has not been estimated for this edition. The costs of this particular remission order are now published annually in the Public Accounts of Canada (ISBN 0-660-177792-7).

²⁹ The change between last year's and this year's estimates reflects improvements in the underlying data used to estimate the cost of the refund.

Table 3
GST tax expenditures*

	Estimates			Projections				
	1996	1997	1998	1999	2000	2001	2002	2003
	(\$ millions)							
Zero-rated goods and services								
Basic groceries ¹	2,650	2,815	2,925	3,065	3,245	3,420	3,610	3,785
Prescription drugs ¹	210	220	230	240	255	270	285	300
Medical devices ¹	85	90	90	95	100	105	115	120
Agricultural and fish products and purchases	S	S	S	S	S	S	S	S
Certain zero-rated purchases made by exporters	S	S	S	S	S	S	S	S
Non-taxable importations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Zero-rated financial services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tax-exempt goods and services								
Long-term residential rent ¹	975	1,025	1,065	1,110	1,160	1,235	1,310	1,365
Health care services ¹	490	520	545	570	595	630	665	700
Education services (tuition) ¹	245	260	270	280	300	315	335	350
Child care and personal services ¹	120	125	130	135	145	150	160	165
Legal aid services ²	30	20	15	15	15	15	20	20
Ferry, road and bridge tolls ¹	5	5	5	5	5	5	5	5
Municipal transit ¹	70	70	75	75	80	85	90	95
Exemption for small business	110	120	125	135	140	150	160	165
Quick method accounting	150	165	170	180	195	200	210	225
Water and basic garbage collection services ¹	65	70	70	75	75	80	85	90
Domestic financial services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Certain supplies made by non-profit organizations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the companion document *Tax Expenditures: Notes to the Estimates/Projections* published in 2000 and available on the Department of Finance Web site (<http://www.fin.gc.ca>), for a discussion of the reasons for this.

GST tax expenditures (cont'd)

[illegible]

Notes:

- ¹ The national GST model used to generate these estimates has been updated and is now based on the 1997 national input-output tables from Statistics Canada and the latest release of the national income and expenditure accounts. Moreover, technical improvements have been made to the model with respect to the measurement of the potential revenues arising from broadening of the tax base. In some instances, these changes have resulted in significant revisions to the tax expenditures.
- ² This tax expenditure was revised downward as a result of new administrative data.
- ³ The housing rebate is based on information provided by Statistics Canada. The downward revision in the 1996 estimate was made to address a technical deficiency in the previous value. The rebate for subsequent years has been revised upward largely as a result of new information on housing prices.
- ⁴ The new residential rental property rebate was introduced in April 2000.
- ⁵ The book rebate was introduced in October 1996.
- ⁶ The methodology for estimating this tax expenditure was derived as part of the review of the Visitors' Rebate Program conducted during 1997 and has been updated to reflect more recent information.
- ⁷ Since the value of this tax expenditure is influenced by provincial budgetary decisions, the projected value of the tax expenditure for the relevant years is simply the value estimated for 1999. The amounts for 1999 were, in all cases, revised upward as a result of new administrative data for that year.
- ⁸ This tax expenditure was revised upward as a result of new administrative data.
- ⁹ The approach used to derive the tax expenditure figures is tightly integrated with the tax expenditure estimates reported for the personal and corporate tax system.

Part 2

TAX EVALUATION AND RESEARCH REPORT

**PRESENT-VALUE TAX EXPENDITURE ESTIMATES
OF TAX ASSISTANCE FOR RETIREMENT SAVINGS**

1. INTRODUCTION

The Department of Finance Canada currently publishes annual estimates of the tax expenditure associated with tax-assisted retirement savings (TARS) programs. However, the Auditor General of Canada has asked the Department to develop an alternative set of estimates that present the net-present-value tax expenditure of contributions made to TARS programs in a given year. This paper first describes the methodology used for measuring the present-value tax expenditure for TARS programs and then provides estimates and projections for the period 1996 to 2003.

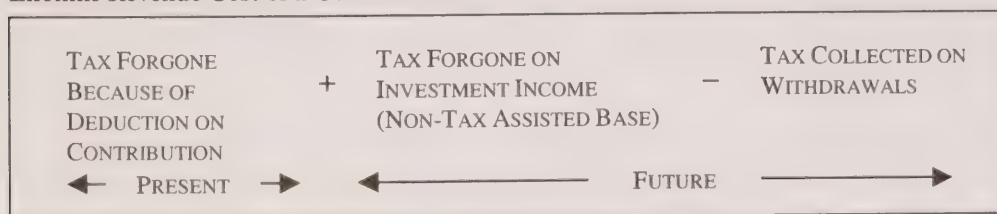
Background

Canada provides three tax-assisted programs for retirement savings: registered pension plans (RPPs), registered retirement savings plans (RRSPs) and deferred profit-sharing plans (DPSPs).

These programs benefit individuals in two ways. First, individuals receive a tax deferral on the amount they contribute to a tax-assisted plan. Second, any investment income earned on a contribution accrues tax-free. However, individuals have to pay taxes on both contributions and associated investment income when they withdraw funds from a tax-assisted plan.

For the Government, these programs have costs in terms of forgone revenue. As Figure 1 illustrates, for a given contribution, there is the tax forgone when the contribution is made (since it is deductible from total income). In addition, the Government forgoes the taxes that it would have received in the future on the investment income if the investment had been made in a non-tax-assisted vehicle. However, these costs are offset in part by the taxes the Government will receive in the future when withdrawals are made.

Figure 1
Lifetime Revenue Cost of a Contribution



Alternative Methods of Measuring the Tax Expenditure

Since there is a tax deferral component in TARS programs, there has been some debate over the appropriate method to measure the tax expenditure.

The Cash-Flow Method

Currently the Government uses a cash-flow method, which answers the following question: If the TARS program were removed today, what would be the estimated revenue impact in the current year? The estimated tax expenditure is arrived at in three steps. First, the Government calculates the value of all the deductions for contributions made in the current year. Second, it imputes the taxes that would have been paid on the investment income earned in TARS plans in the current year and adds that to the cost of the deductions. Third, it deducts from this total the taxes paid on the withdrawals from TARS plans in the current year.

While this method answers the question posed above, it has shortcomings in respect of a number of important issues. In particular, the size of the estimate depends directly on the maturity of the retirement savings system and the relative sizes of the working and retired populations. For example, in the early years of a pension system, contributions tend to be high relative to benefit payouts, whereas under a mature system total payouts will usually exceed total contributions. The estimate is also affected by demographic conditions. Currently, contributions are high relative to benefits because the baby boom generation is in its peak contribution years. Thus, for these two reasons, one could argue that the cash-flow estimates overstate the cost of providing tax assistance. The tax expenditure implied by these estimates may be expected to decline in the future as the pension system matures and members of the baby boom generation begin to draw down their savings.

The Present-Value Method

Another way of measuring the tax expenditure associated with TARS programs is to answer the question: What is the lifetime cost of all contributions made in a given year?¹ The present-value method answers a different question than the one answered by the cash-flow method and thus the estimates from the two methods are not directly comparable. The present-value method considers the net revenue forgone in today's dollars because of contributions made in a year. That is, it adds together the cost of the deduction incurred today for those contributions and the discounted cost of the non-taxation of the accrued investment income earned on those contributions, and then it subtracts the discounted revenue stream received when the contributions and the investment income are withdrawn.

This present-value method does not take into account the revenue forgone on past contributions. However, unlike the cash-flow method, it is not affected by demographic conditions or the maturity of the pension system. The present-value and cash-flow methods will not produce the same result under any demographic conditions.

¹ The present-value approach was first put forward by Samuel Rae. However, unlike the estimates in this paper, which are for the lifetime cost of one year's contributions, Rae was proposing a means to estimate an annual tax expenditure of all past and present contributions to RRSPs. See Samuel A. Rae, Jr., "Registered Retirement Savings Plans as a Tax Expenditure," *Canadian Tax Journal*, 28(4) (1980), pp. 459-464.

2. THEORETICAL DEVELOPMENT OF THE PRESENT-VALUE METHOD²

The present-value tax expenditure, P , of a contribution made at age M and withdrawn at age N is estimated using the following formula:

$$P = Ct_M + C[1 - t_M(1 + u)] \sum_{j=M+1}^N \frac{\left\{ \prod_{k=M+1}^{j-1} [1 + i(1 - t_k(1 + u))] \right\} it_j}{(1 + \rho)^{j-M}} - \frac{C(1 + i)^{N-M} t_N}{(1 + \rho)^{N-M}} \quad (1)$$

where C is the contribution, t is the marginal tax rate, u is the average provincial tax rate (expressed as a percentage of federal taxes for convenience), i is the nominal rate of return, ρ is the discount rate, and j and k are periods during which the contribution earns investment income. Note that P and C represent averages for a cohort of individuals of the same age. The first term in equation (1) is the tax forgone on the contribution, the second term represents the revenue that would have been collected on the investment income, and the last term is the revenue that is collected when the contribution and all investment income are withdrawn.³ We assume that marginal tax rates vary with age. We also assume that any non-sheltered income is taxed as interest income. Later in the paper we relax the latter assumption.

We illustrate the calculation with the simple example shown in Table 1. Suppose that an individual makes a \$100 contribution to a tax-assisted plan at age 50 and withdraws the \$100 and any interest at age 55. To simplify matters, assume that the federal marginal tax rate is constant through time (that is, $t_M = t_j = t_N$) and equal to 25 per cent, that provincial taxes are 50 per cent of federal taxes, and that both the rate of return and the discount rate are equal to 6.4 per cent (we develop this rate later in the paper).

The top section of the table indicates what happens in a tax-assisted environment. The after-tax cost of the \$100 contribution is \$62.50, because the federal government provides a deduction worth \$25 on the contribution while the provincial government forgoes an additional \$12.50 in tax revenue. The \$100 grows until the end of year five, when the entire amount is withdrawn, resulting in federal taxes of \$34.09 and provincial taxes of \$17.05.

The next section indicates what happens in a non-tax-assisted environment. The individual first has to pay \$25 dollars in federal taxes and \$12.50 in provincial taxes on the \$100 of income available to be saved, meaning that only \$62.50 is invested.⁴

² An alternative approach to estimating the present-value tax expenditure is described in the Appendix.

³ Note that in the first year after the investment is made ($M+1$), the product operator will be equal to 1 since $k > j-1$.

⁴ Note that the after-tax cost to the individual is the same under both the tax-assisted and non-tax-assisted environments.

At the end of each year, the individual pays tax on the interest, but nothing on the withdrawal itself.

Table 1
Calculation of Present-Value Tax Expenditure

		Amounts (\$)							Total present-value cost
		Contribution (Year 1)	1	2	Year 3	4	5	Withdrawal (Year 5)	
TARS investment	Gross balance	62.50	106.40	113.21	120.46	128.16	136.37	136.37	
	Fed. tax paid (A)	-25.00						34.09	
	Prov. tax paid (C)	-12.50						17.05	
	Net balance	100.00	106.40	113.21	120.46	128.16	136.37	85.23	
Non-TARS investment	Gross balance	62.50	66.50	69.16	71.93	74.80	77.80		
	Fed. tax paid (B)		1.00	1.04	1.08	1.12	1.17		
	Prov. tax paid (D)		0.50	0.52	0.54	0.56	0.58		
	Net balance	62.50	65.00	67.60	70.30	73.12	76.04		
Federal tax loss (Tax paid B - Tax paid A)		25.00	1.00	1.04	1.08	1.12	1.17	-34.09	
Federal present-value tax cost		25.00	0.94	0.92	0.90	0.88	0.86	-25.00	4.49
Provincial tax loss (Tax paid D - Tax paid C)		12.50	0.50	0.52	0.54	0.56	0.58	-17.05	
Provincial present-value tax cost		12.50	0.47	0.46	0.45	0.44	0.43	-12.50	2.25
Total federal and provincial present-value cost:									6.74

The third and fourth sections of Table 1 show the tax cost to the federal government on a current- and present-value basis. In this example, the federal tax expenditure on a \$100 contribution is \$4.49 or \$0.04 per dollar. The remainder of the table shows the tax expenditure for the province and the total for both levels of government. Notice that because the rate of return on the investment and the discount rate are equal, the revenue received from the future withdrawal exactly compensates for the tax lost on the contribution today. If the discount rate were less than the rate of return, the tax on the withdrawal would have a higher present value, leading to a *lower* tax expenditure.

These observations can also be seen by comparing the first and last terms in equation (1). When $t_M = t_N$ and $i = \rho$, that is, when the tax rates applicable to contributions and withdrawals are the same and when the interest rate and the discount rate are also equal, the terms cancel each other. As ρ decreases, the last term in equation (1) increases, but because this term is subtracted, the present value of the tax expenditure falls.

Table 2 illustrates how the tax expenditure varies with the length of time the contribution remains in the tax-assisted plan, $N-M$, using our simple example. The longer the period, the larger the tax expenditure.

Table 2
Change in Present-Value Tax Expenditure Over Time

N – M (years)	Federal present-value tax expenditure (per dollar of contribution) (\$)
5	0.04
10	0.08
20	0.15
30	0.21
40	0.25

Now we add a further dimension to the analysis. Because payouts from retirement savings plans are normally received in a stream of payments over the retirement period, it is necessary to allow for more than a single payout at age N . Therefore, the present-value tax expenditure of a given contribution will be the sum of several calculations of the type made in equation (1). For example, a \$1 contribution is made at age 50, but 10 cents (plus the associated interest) is withdrawn every year for 10 years. More generally, there will be a distribution of withdrawals over time. In our model, we assume that the maximum age that a person can withdraw funds from a tax-assisted plan is 99. Algebraically, the calculation of the tax expenditure is as follows:

$$Q = \sum_{N=M+1}^{99} a_N P_N$$

$$\sum_N a_N = 1$$
(2)

where Q is the tax expenditure for a contribution that is withdrawn over several periods, a_N is the proportion of the contribution made at age M that is paid out at age N , and P_N is the present-value cost of contributions made at age M and withdrawn at age N , as calculated in equation (1). We discuss how we calculate the factor a_N in the next section.

The last step is to aggregate the individual results. This is accomplished by weighting the results from equation (2) (Q_i) by the proportion of total contributions made in the year by individuals of different ages, c_i :

$$PVTE = \sum_{i=M_0}^{M^*} c_i Q_i$$

$$\sum_i c_i = 1$$
(3)

where M_0 and M^* are the lowest and highest ages at which contributions can be made.

3. APPLYING THE PRESENT-VALUE METHOD

In calculating the present-value tax expenditure estimate, this paper follows the assumptions made in recent *Tax Expenditures and Evaluations* reports. First, the estimates are based on a broadly defined benchmark tax system, which uses nominal income as the tax base rather than real income. Second, the estimates are made assuming that there would be no change in savings or in the timing of withdrawals if the tax expenditure were removed. In other words, it is assumed that there is no behavioural change.

Although estimates are presented separately for RPP and RRSP programs⁵ under the cash-flow method, we calculate only one estimate for these two programs under the present-value method. This is because the longitudinal tax return data we use in the development of the estimates does not separate RPP income from RRSP income.

We require several pieces of information to calculate the present-value tax expenditure.

First, we need information on the marginal tax rates on contributions and withdrawals.

Second, since there is a tax deferral on contributions made to a tax-assisted plan, we need to know how long a given contribution remains in such a plan (recall the factor a_N from equation (2) in the previous section). Therefore, a distribution by age of how the contribution is withdrawn from the plan over an individual's remaining lifetime is required.

Third, since the tax treatment of various forms of investment income varies, we need to know the investment portfolio of individuals in the absence of a TARS program. For example, capital gains and dividends are taxed at a lower rate than interest income.

Finally, we must make assumptions about the rate of return on contributions and the discount rate. The model assumes that both the rate of return and the discount rate are constant.

We provide further details below about how these pieces of information were obtained and what assumptions were made.

⁵ Data on DPSPs are not available.

Calculating Federal Marginal Tax Rates

The T1 model has been used to generate average federal marginal tax rates by age and sex for both contributions and withdrawals at five-year age intervals. The tax rates used for 1998 are shown in Table 3, which indicates that the marginal tax rates on withdrawals are less than the rates on contributions.⁶ These rates are consistent with those used to calculate the cash-flow estimate. Based on estimates of provincial tax revenues as a percentage of federal tax revenues, we assume that the provincial marginal tax rates are just over half of the federal tax rate.

Table 3
Average Federal Marginal Tax Rates, 1998

Age	Contributions		Withdrawals	
	Males	Females	Males	Females
	(%)			
19	17.4	16.9	7.3	10.8
20 - 24	21.5	19.3	17.8	14.6
25 - 29	25.4	23.8	22.8	20.9
30 - 34	27.4	25.2	25.5	21.6
35 - 39	28.2	25.9	24.9	22.1
40 - 44	28.3	25.8	25.3	22.2
45 - 49	27.8	25.2	24.3	20.5
50 - 54	27.6	24.7	23.3	19.6
55 - 59	27.1	24.2	22.3	19.0
60 - 64	26.7	23.5	21.8	18.4
65 - 69	29.3	27.3	21.8	18.6
70 - 74	22.6	19.4	21.6	19.0
75 - 79	29.3	19.4	21.4	19.2
80 - 84			19.4	18.3
85 - 89			16.7	15.8
90 - 99			15.2	11.7
Weighted average	27.5	25.0	21.9	18.9

The rates presented in Table 3 reflect the benefit reduction rates on federal income-tested programs that are part of the tax system, such as the Canada Child Tax Benefit, the goods and services tax credit, and Old Age Security repayments. A case could be made that the benefit reduction rates for the Guaranteed Income Supplement (GIS) should also be taken into account in the marginal tax rates, even though the GIS is not linked directly to the tax system. If the GIS benefit reduction rates were reflected in the marginal tax rates shown in Table 3, then the tax expenditure estimates under the present-value and cash-flow methods would be reduced. We are reviewing whether GIS effects should be taken into account when calculating TARS tax expenditures.

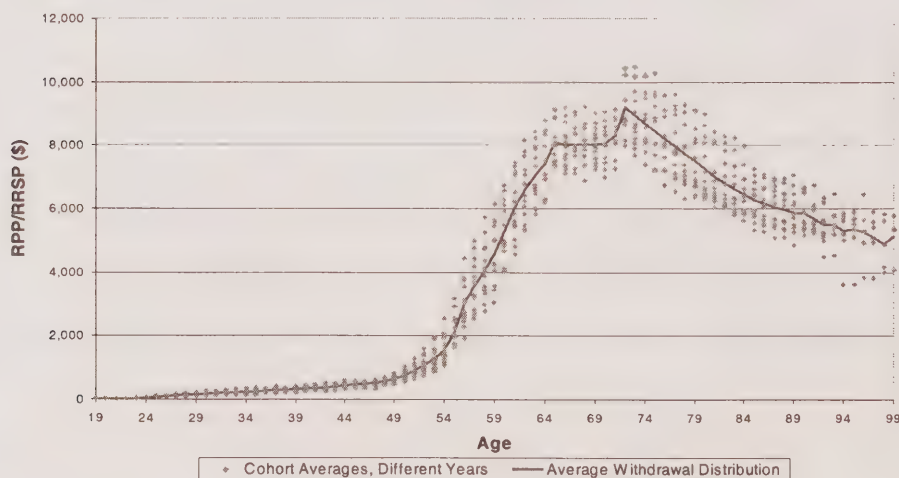
⁶ The overall weighted average shown in Table 3 is based on the distributions of contributions and withdrawals.

Developing the Withdrawal Distribution

The empirical approach to develop the withdrawal distribution has four stages. First, an average RPP/RRSP income profile for a typical individual as he or she ages from 19 to 99 is derived using longitudinal tax return data.⁷ Second, this profile is then modified to take into account the lifespan of the population as a whole. The third stage discounts the modified income distribution in order to obtain the withdrawal profile of contributions rather than a withdrawal profile of both contributions and investment income. The fourth stage adjusts this profile for individuals who are older than 19.

The first stage begins with longitudinal tax return data for the years 1985 to 1997.⁸ Individuals are grouped by their age in 1985. Therefore, for each age level, there are 13 observations representing the total RPP/RRSP withdrawal made in each year from 1985 to 1997. For each observation, an age is assigned based on the 1985 age for that group of individuals. For instance, someone who was 20 in 1985 would be 21 in 1986 and 32 in 1997. This process is repeated for each age level in 1985. Therefore, for most age levels, there are multiple observations of income withdrawn from RPPs and RRSPs. The dollar values of RPP/RRSP income are converted into constant 1992 dollars. These observations are plotted on an X-Y graph with age on the X-axis and income on the Y-axis (Figure 2). An average of the income amounts for each age level is used to generate a lifetime RPP/RRSP income distribution for a typical individual (also shown in Figure 2). The average value for each age is then divided by the sum of all average values to obtain a percentage distribution. This distribution represents the withdrawal distribution for a 19-year-old individual who will live until 99 years of age.

Figure 2
Average RPP/RRSP Income (in Constant 1992 Dollars)
Based on Longitudinal Tax Return Data, 1985-1997



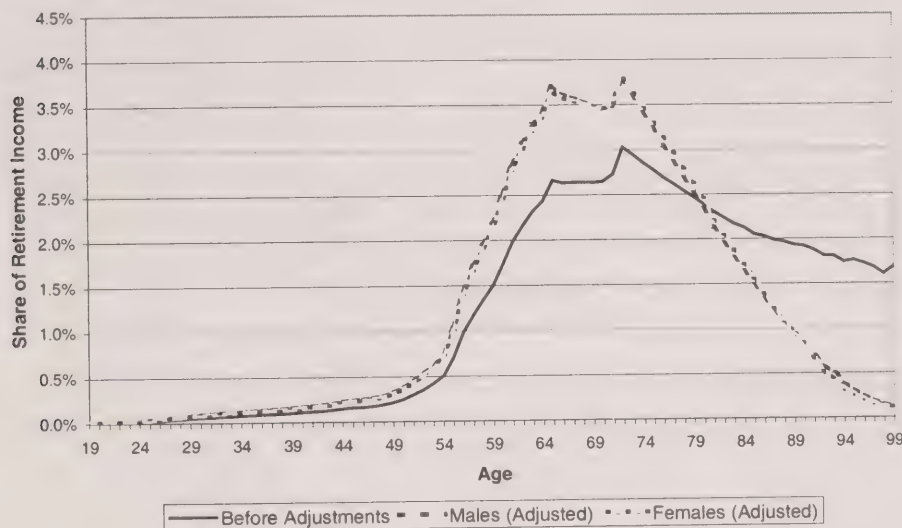
⁷ As noted earlier, we assume that all contributions are taxed by age 99.

⁸ The longitudinal data file has information on RPP/RRSP withdrawals only for the 1985-1997 period.

This distribution should be adjusted to take into account the probability that the individual will die before reaching the age of 99. Therefore, in the second stage, survival rates are calculated using mortality rates from Statistics Canada's *Vital Statistics Compendium*.⁹ These survival rates are then modified to account for survivor benefits.¹⁰

The percentage distribution is then multiplied by the survival rates and adjusted so that the final withdrawal distribution adds to 100 per cent. We compare these adjusted distributions in Figure 3. These adjusted distributions indicate that 15 per cent of withdrawals are made before age 60, 65 per cent are made between ages 60 and 79, and 20 per cent are made at ages 80 and up.

Figure 3
Distribution of RPP/RRSP Income
Before and After Adjustment for Survival Rates



⁹ Statistics Canada, Cat. No. 84-214, 1996. The survival rate is equal to 1 minus the mortality rate (expressed as a per cent). The probability of survival to a given age is the product of all previous survival rates. Survival rates are calculated separately for males and females. We also investigated the effect of higher-income individuals living longer. Based on 1991 data from Statistics Canada, we found that even though high-income people lived longer, the net effect on our preferred tax expenditure estimate was only 0.2 per cent.

¹⁰ The survivor benefit is assumed to be 50 per cent of the contributor's benefit. Female spouses are assumed to be three years younger than male spouses. Therefore, the modified survival rate for a male would be calculated as $z \times p(m) + (1-z) \times [p(m) + (1-p(m)) \times p(f) \times 0.5]$, where $p(m)$ is the male survival rate, $p(f)$ is the female survival rate and z is the proportion of individuals who are not married, in this case 0.1. No adjustment needs to be made for spousal RRSPs since these are implicitly taken into account through the data.

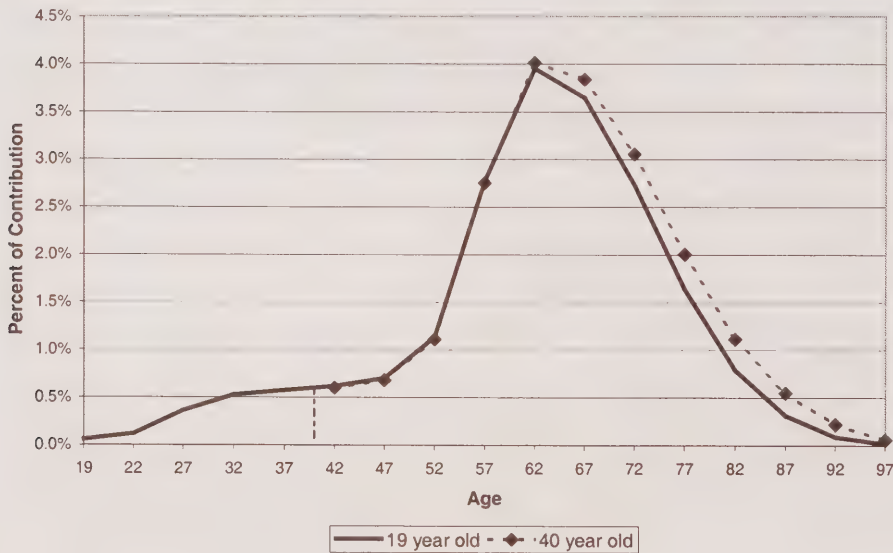
Since we need to know the length of time a contribution remains in an RPP or RRSP, the withdrawal distribution should indicate the proportion of contributions withdrawn, not the sum of both contributions and interest. However, we cannot observe the ratio of contributions to interest being withdrawn. Therefore, in the third stage the total income distribution is discounted assuming that the contribution was made when the individual was 19.¹¹ This distribution is shown by the solid line in Figure 4.

Up to this point, we have discussed a withdrawal distribution for a 19-year-old making a contribution. For contributions made by those over age 19, the distribution needs to be adjusted so that the entire contribution will be withdrawn. The concept is illustrated in Figure 4 for a 40-year-old making a contribution. The dashed line represents the distribution for a 40-year-old which is almost identical to the distribution for a 19-year-old up to age 62. The area under each of the lines is equal to 1. The new distribution is obtained as follows:

$$W_{40}(N) = \frac{W_{19}(N)}{\sum_{n=40}^{99} W_{19}(N)} \quad (4)$$

where $W_{40}(N)$ is the probability of withdrawal at age N for a contribution made at age 40, and $W_{19}(N)$ is the probability of withdrawal at age N for a contribution made at age 19. Graphically, each point on the 19-year-old distribution is divided by the area under the distribution to the right of age 40, as shown in Figure 4.

Figure 4
Discounted Withdrawal Distributions

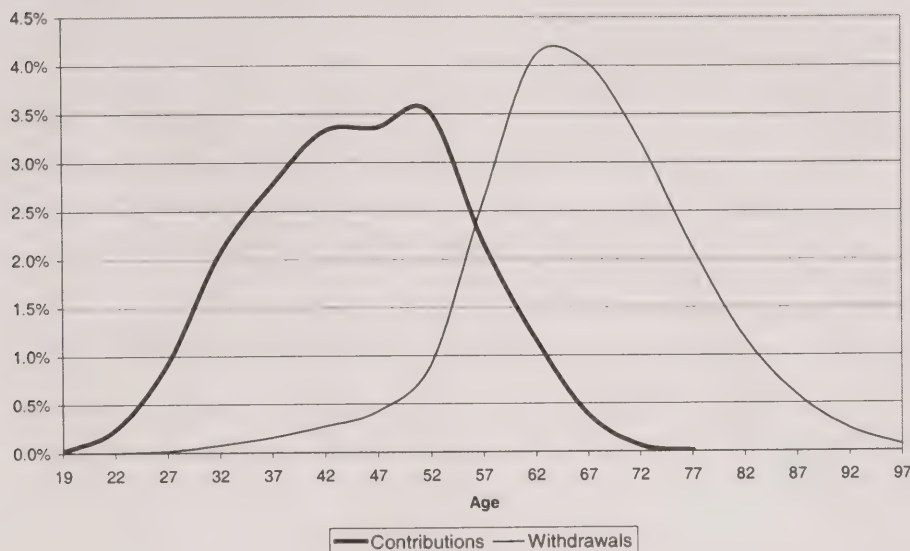


Note: The discount rate used is the real market rate of return (4.4 %).
This rate is derived later in the text.

¹¹ The discount factor is adjusted for inflation (i.e. the real market rate of return is used).

By weighting the truncated distributions by the contribution profile, one can obtain a projected withdrawal distribution for the contribution profile made in a given year. This is shown in Figure 5 for 1997 contributions. This chart indicates the average length of time a contribution is held before it is withdrawn, which in this case is about 19 years.

Figure 5
Contributions and Projected Withdrawals



The empirical approach we use in this paper could be criticized because the withdrawals made today do not fully take into account the increase in both the use and generosity of TARS programs (in short, the pension system is not fully mature). One could argue that because the increased generosity and use of the program will lead to higher withdrawal amounts (in real terms) for those retiring in the future, the share of the total withdrawals occurring in retirement will increase in the future. However, while the amounts withdrawn will increase for those in retirement, it is also possible that the amounts withdrawn before retirement will increase proportionately, meaning that there will be no change in the shares of retirement income withdrawn at a given age. The arguments are illustrated in Figure 6. Distribution A represents the level of withdrawals currently observed. Distribution C presents the first argument, where only withdrawals in retirement increase, thereby changing the shares for each age. Distribution B is simply an upward shift of distribution A, meaning that the shares of retirement income withdrawn at a given age remain the same.

We checked our distribution by comparing the distribution of 1985 with that of 1997 (Figure 7). We found that there was little change in the withdrawal distribution between these two years, leading us to believe that despite the changes in the TARS programs and their use, the age distribution of withdrawals will remain relatively constant in the future.

As a final point, it should be noted that in a non-tax-assisted environment, the discounted withdrawal profile may be different as individuals respond to the differences in tax treatment of various investments. However, since we are assuming no behavioural change between tax-sheltered and non-sheltered investments, it is assumed that the withdrawal distribution is the same for non-tax-assisted investments as it is for tax-assisted investments.

Figure 6
Level of Withdrawals From RPPs and RRSPs

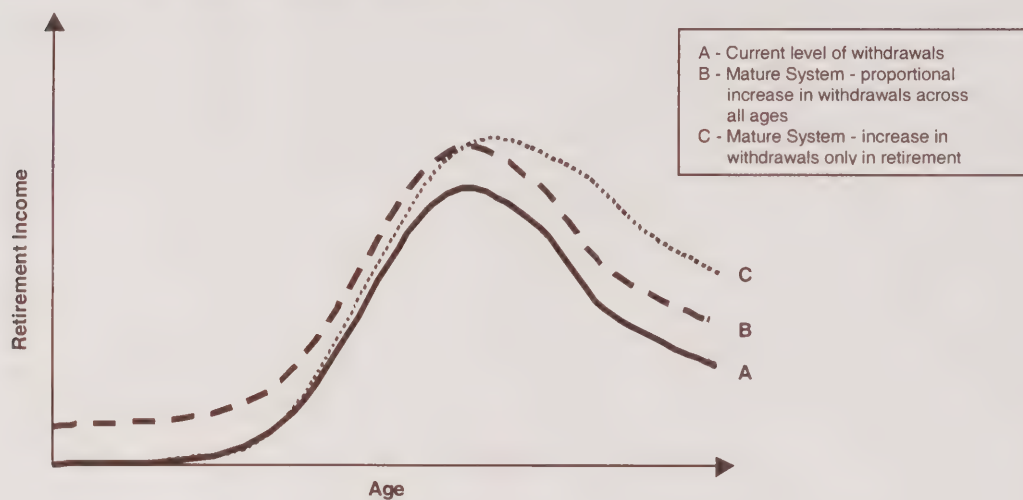
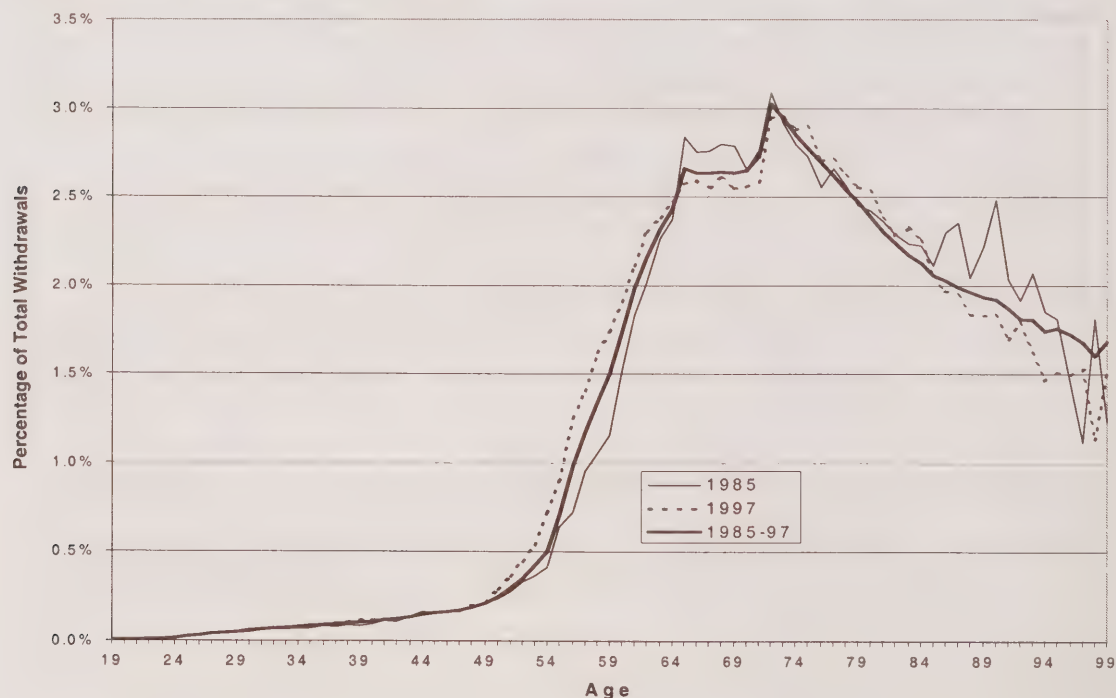


Figure 7
Age Distribution of Withdrawals by Year



Developing the Investment Portfolio

As mentioned earlier, different investments receive different tax treatment. Interest income from bonds, Treasury bills, and guaranteed investment certificates is taxed the same as employment income. Meanwhile, capital gains are treated favourably in two ways. First, they are taxed only upon realization, creating a tax deferral. Second, capital gains are not fully taxed.¹² In addition, the effective tax rate on dividend income is reduced at the personal level by the dividend gross-up and tax credit.

In accordance with the standard approach for estimating tax expenditures, the alternative portfolio should not take into account any behavioural changes. Therefore, we assume that individuals invest in exactly the same instruments that they currently invest in through their RPPs or RRSPs. A more realistic approach would allow for investment in owner-occupied housing (such as paying down a mortgage). However, this would imply a behavioural change. If investment in housing were included in the model, the tax expenditure would be lower because owner-occupied housing benefits from the non-taxation of capital gains and the non-taxation of imputed rents.

Data to develop the portfolio are taken from Statistics Canada's *Trusted Pension Funds and Pension Plans in Canada*.¹³ Stock data are used to determine the proportion of the portfolio in different types of investments. To be useful for estimating the present-value tax expenditure of TARS programs, these investments need to be classified between interest-bearing and equity-type assets (capital-gain-bearing or dividend-bearing). For trusted RPPs (Table 4), mutual and investment funds, equities and real estate are assumed to produce capital gains or dividends, while the remaining items are interest-bearing. For RRSPs (Table 5), only investment funds are assumed to produce capital gains or dividends, while investments held by the financial institutions are assumed to be interest-bearing. In addition, the assets in non-trusted public employee pension plans and insurance plans are assumed to be interest-bearing. Taken together, the average portfolio of all of the above plans is 67.9 per cent interest-bearing and 32.1 per cent equity.

To determine the proportion of dividend and capital gain income for equity investments, we can use the ratio of the Toronto Stock Exchange (TSE) 300 return to the "total return" on the TSE 300, which represents the combined return from dividends and the index. The ratio for the 1956-1999 period was 41 per cent capital gains and 59 per cent dividends.

¹² The inclusion rate was reduced from three-quarters to two-thirds as of February 28, 2000, and was further reduced to one-half as of October 18, 2000. For simplicity, the inclusion rate for 2000 is assumed to be two-thirds when calculating the tax expenditure estimate.

¹³ Statistics Canada, Catalogues No. 74-201 and 74-401 respectively.

Table 4
Book Value of Assets in Trusteed RPPs

	Percentage of gross assets				
	1992	1993	1994	1996	Average
Pooled, mutual and investment funds	7.3	7.9	12.4	19.6	11.8
Equities	44.2	32.9	32.9	34	36.0
Bonds	32.6	42.2	39.6	33.1	36.9
Mortgages	3.2	2.8	2.6	1.9	2.6
Real estate	3.5	3.3	3.5	3.2	3.4
Cash and short-term deposits	7	8.6	6.9	6.3	7.2
Miscellaneous assets	2.3	2.3	2.1	1.8	2.1

Note: Percentages may not add to 100 due to rounding.

Source: Statistics Canada, *Trusteed Pension Plans*, Cat. No. 74-201.

Table 5
Accumulated Assets Held in RRSPs

Money held by:	Percentage of total assets						Average
	1992	1993	1994	1995	1996	1997	
Trust companies	11.7	11.8	9	7.9	6.9	4.5	8.6
Credit unions	11.2	11.2	11.6	11.7	11.1	10.2	11.2
Chartered banks	33.8	33.2	32.3	34	31	26.3	31.8
Other deposit taking intermediaries	0.5	0.5	0.4	0.4	0.3	0.1	0.4
Investment (mutual) funds	22.9	23.1	27.5	28.9	33.9	42.1	29.7
Insurance companies	19.9	20	19.2	17.2	16.9	16.7	18.3

Note: Percentages may not add to 100 due to rounding.

Sources: Statistics Canada, *Trusteed Pension Plans*, (Cat. No. 74-201), and *Pension Plans in Canada*, (Cat. 74-401).

We also have to make an assumption regarding the length of time a capital gain is held before it is realized. Our base case will rely on U.S. data that suggest that the average holding period is about 6.3 years.¹⁴ To test the sensitivity of the results, we also use 10 years as the holding period.

Therefore, the base-case portfolio used in the analysis will have the following characteristics:

- 67.9 per cent interest-bearing and 32.1 per cent equity;
- equity returns are 41 per cent capital gains and 59 per cent dividends; and
- capital gains are realized every 6.3 years until withdrawn.

¹⁴ This value is for corporate stocks. Unfortunately, only U.S. data were available.

See Leonard E. Burman and Peter D. Ricoy, "Capital Gains and the People Who Realize Them," *National Tax Journal*, L(3) (1997), pp. 427-451.

Choosing the Rate of Return and the Discount Rate

There are two perspectives that we can take regarding the discount rate. The first is to take a “social approach.” This approach attempts to take into account the impact on social welfare of TARS programs. Since tax expenditures can be interpreted as a form of government spending, we can turn to the cost-benefit analysis literature on public spending for some insight regarding the appropriate discount rate. Economic theory defines a range of plausible values.¹⁵ Essentially, one can regard public sector spending as a reallocation of resources from the private sector to the public sector. That is, the tax expenditure is financed through higher taxes. These private sector resources could have been used for either consumption or investment. If the resources were used only for investment, the appropriate discount rate is the marginal rate of transformation (MRT), which is equal to the rate of return before all corporate and personal income taxes. If the resources were used for consumption, then the discount rate should be the marginal rate of substitution (MRS), which is the after-tax rate of return to individuals.¹⁶

In general, the resources are reallocated from both consumption and investment, so the discount rate should be between the MRS and the MRT. One possibility is to use the after-corporate, before-personal-income-tax rate of return. This is more generally referred to as the before-tax rate of return earned on bonds and other forms of investment. This rate is both well known and within the range dictated by economic theory. Using the pre-tax portfolio rate of return also has some intuitive appeal. In Section 2 we point out that when the rate of return and the discount rate are equal, the taxes received on withdrawal have the same present value as the cost of the deduction for the contribution.

The second perspective is the “financial approach.” This perspective considers how much it costs the Government, in terms of lost revenue, to provide TARS programs. In this case, the discount rate would be the Government’s cost of borrowing – the pre-tax long-term government bond rate. The financial approach is consistent with the way we measure other tax expenditures. Note that using this rate will lead to a lower tax expenditure. While we present results using both rates in the next section, we will report the estimates using only the financial approach in the future.

¹⁵ An excellent discussion on the choice of a discount rate is contained in Richard W. Tresch, *Public Finance: A Normative Theory* (Plano, Texas: Business Publications, 1981).

¹⁶ In a world with no taxes, the MRT would be equal to the MRS.

We estimated the rate of return on our portfolios based on data for the 1956-1999 period. The estimate is a weighted average of the long-term government bond rate, the long-term corporate bond rate and the total return on the TSE 300.¹⁷ We calculated the real return on the portfolio to be 4.4 per cent and the average real government bond rate to be 3.5 per cent.¹⁸ Assuming that inflation is 2 per cent, the nominal rates are 6.4 per cent on the portfolio and 5.5 per cent on long-term government bonds.

4. ESTIMATES AND PROJECTIONS OF THE FEDERAL TAX EXPENDITURE

Table 6 presents the estimates of the present-value tax expenditure for 1998 using various portfolio alternatives. These results are calculated using the long-term government bond rate as the discount rate. This table highlights the effect of the different tax treatments for different types of returns. If the non-tax-assisted portfolio consisted entirely of interest-bearing assets, then the tax expenditure would be \$8 billion, or \$0.19 per dollar of contributions.¹⁹ If the portfolio consisted of only dividend-bearing assets, the tax expenditure would be \$4.7 billion, or \$0.11 per dollar of contributions. If the portfolio were the base case defined in Section 3, then the tax expenditure would be \$7.1 billion, or \$0.17 per dollar of contributions. The results shown in Table 6 also indicate that the tax expenditure estimate is not very sensitive to the capital gains holding period.²⁰ This is because of the low weight given to equity in the portfolio.

Table 6
1998 Present-Value Tax Expenditure Estimates for Various Portfolios
(Using Government Bond Rate as the Discount Rate)

	Gross tax expenditure	Tax expenditure per dollar of contributions
	(\$ billions)	(\$)
100% interest	8.0	0.19
100% capital gains (6.3-year rollover)	6.1	0.15
100% capital gains (10-year rollover)	5.8	0.14
100% dividends	4.7	0.11
Base case portfolio	7.2	0.17

¹⁷ The weights used are based on the RPP/RRSP portfolio. The interest-bearing component was assumed to be 80 per cent government bonds and 20 per cent corporate bonds, which corresponds to the relative shares of total bonds in the National Accounts (personal sector). The TSE 300 total return, which represents the combined return on the index and dividends, was used for the equity portion of the portfolio.

¹⁸ The real rate on corporate bonds averaged 4.4 per cent while the total real return on the TSE averaged 5.8 per cent.

¹⁹ Based on total RPP/RRSP contributions of \$41.6 billion in 1998.

²⁰ In the weighted RPP/RRSP portfolio, the difference in the estimate is 0.6 per cent. If the capital gain is held for the entire period that a contribution remains in an RPP or RRSP, we estimate that the tax expenditure will fall by 3.1 per cent.

If the market rate of return (6.4 per cent) were used as the discount rate rather than the long-term government bond rate (5.5 per cent), the estimate for the portfolio would rise from \$7.1 billion to \$8.2 billion. Thus, the tax expenditure estimate would rise from \$0.17 per dollar of contributions to \$0.20 per dollar of contributions.

Table 7 provides both present-value and cash-flow estimates for the years 1996 to 1998 and projections for the years 1999 to 2003.²¹ The two approaches use different definitions of the TARS tax expenditure and therefore differ in both level and trend. The present-value tax expenditure per dollar of contributions falls from \$0.17 in 1998 to \$0.14 in 2001. This reflects the fall in marginal tax rates projected for this period because of the measures contained in the 2000 budget and the October 2000 *Economic Statement and Budget Update*. The cash-flow estimates peak at \$0.38 per dollar of contributions in 1999, largely due to an interest rate spike in that year. They fall sharply to \$0.30 per dollar in 2001, reflecting both the fall in tax rates and a rise in withdrawals relative to contributions.

Table 7
Tax Expenditure Estimates and Projections, 1996-2003

	Year	Total contributions (\$ billions)	Present-value estimates		Cash-flow estimates	
			Gross tax expenditure (\$ billions)	Tax expenditure per dollar (\$)	Gross tax expenditure (\$ billions)	Tax expenditure per dollar (\$)
Estimates	1996	43.4	7.4	0.17	14.8	0.34
	1997	44.9	7.6	0.17	15.2	0.34
	1998	41.6	7.1	0.17	13.6	0.33
Projections	1999	43.4	7.2	0.17	16.4	0.38
	2000	45.4	7.3	0.16	14.2	0.31
	2001	47.6	6.9	0.14	14.1	0.30
	2002	49.9	7.2	0.14	14.3	0.29
	2003	52.3	7.5	0.14	14.4	0.28

If parameters such as tax rates and interest rates are constant in the future, the present-value estimate per dollar of contributions will remain relatively stable, while the cash-flow estimate will decline over time as the pension and RRSP system matures and members of the baby boom generation begin to draw down their savings. The results in Table 7 point towards this trend since the cash-flow estimate per dollar of contributions falls between 2001 and 2003 while the present-value estimate remains constant.

²¹ In this table we use the long-term government bond rate as the discount rate for the present-value estimates.

5. CONCLUSION

This paper describes the various issues involved in developing a present-value tax expenditure estimate for TARS programs. The key issues in this process are the choice of the discount rate and the development of a withdrawal distribution and investment portfolio. We have used an empirical approach in the development of both the withdrawal distribution and investment portfolio. Based on the analysis in Section 3, we have chosen the long-term government bond rate to be the discount rate used to calculate the estimates.

The present-value estimates complement the cash-flow estimates currently published by the Department. The cash-flow method gives estimates of the net revenue cost of providing a deduction on current-year contributions, not taxing the current-year investment income earned by past contributions, and taxing current-year withdrawals. The present-value method estimates the present value of taxes forgone today and in the future as a result of contributions made in a given year. Each measure has its advantages, and together, the cash-flow and present-value estimates provide more information on the revenue cost of tax-assisted retirement savings programs than was available previously.

APPENDIX: ALTERNATIVE APPROACH TO ESTIMATING THE PRESENT-VALUE TAX EXPENDITURE

In the main text we use a method that focuses on the tax cost to the Government over time (the “tax-cost” method). This section describes another approach that has been used in the literature to obtain a present-value tax expenditure estimate of TARS: the “benefit” method. This approach views the problem from the perspective of the individual. It assumes that the present value of the net proceeds to the individual is equal to the present value of the costs to the Government. But this is only true when the rate of return and the discount rate are equal. Therefore, this method can be used only if the discount rate is the same as the rate of return.²² We illustrate this method with an example similar to that used to describe the method in the main text (that is, we assume that marginal tax rates vary with age, the rate of return is constant and any non-sheltered income is taxed as interest income).

The net proceeds in a future year of saving a dollar in a tax-assisted plan from age M to age N are given by:

$$NP_{TA} = C(1+i)^{N-M} (1-t_N) \quad (A1)$$

where NP_{TA} is the net (or after-tax) proceeds of tax-assisted saving, C is the amount saved in pre-tax dollars, i is the nominal rate of return, M and N are the ages when the contribution is made and withdrawn (with interest) respectively, and t_N is the marginal tax rate at the time of withdrawal. The factor $(1+i)^{N-M}$ indicates that no tax is paid on investment income as it accrues in the plan. The factor $(1-t_N)$ indicates that the gross proceeds are subject to tax when withdrawn from the plan in year N .

In contrast, the net proceeds in a future year of saving the after-tax amount from one dollar of pre-tax income in a non-tax-assisted investment are given by:

$$NP_{NTA} = C(1-t_M) \prod_{j=M+1}^N [1+i(1-t_j)] \quad (A2)$$

where NP_{NTA} is the net proceeds of non-tax-assisted saving. Here, the factor $C(1-t_M)$ indicates that only after-tax dollars are being saved. The product term indicates that investment income is subject to tax each year.

²² At the end of this appendix we show that the two methods are equivalent when the rate of return is equal to the discount rate.

The future net benefit to the contributor of saving in a tax-assisted plan is given by the difference between the tax-assisted proceeds and the non-tax-assisted proceeds. This net benefit is equal to the loss in tax revenue for the Government (in future dollars).

$$\text{Net Benefit to Individual} = \text{Loss in Tax Revenue} = NP_{TA} - NP_{NTA} \quad (\text{A3})$$

To arrive at the tax expenditure in current dollars (that is, when the contribution is made), the future loss in tax revenue must be discounted by the factor $1/(1-\rho)$, where ρ is the discount rate.

Therefore, substituting equations (A1) and (A2) into (A3) and discounting yields:

$$P' = \frac{C(1+i)^{N-M}(1-t_N) - C(1-t_M) \prod_{j=M+1}^N [1+i(1-t_j)]}{(1+\rho)^{N-M}} \quad (\text{A4})$$

where P' is the present-value tax expenditure using this approach.

Let us illustrate the calculation with a simple example. Suppose that an individual makes a \$1 contribution to a tax-assisted plan at age 50 and withdraws the dollar and any interest at age 55. To simplify matters, we assume that the federal marginal tax rate is constant through time (that is, $t_M = t_j = t_N$) and equal to 25 per cent.²³ We use a 6.4 per cent yield on plan funds. Therefore, the net proceeds from the tax-assisted plan will be:

$$NP_{TA} = \$1(1.064)^5(0.75) = \$1.02 \quad (\text{A5})$$

If the identical investment were made in a non-tax-assisted investment, the net proceeds would be:

$$NP_{NTA} = \$1(0.75)(1 + 0.064(0.75))^5 = \$0.95 \quad (\text{A6})$$

If we use the rate of return on plan funds as the discount rate, then the present-value tax expenditure is:

$$P' = \frac{(\$1.02 - \$0.95)}{1.36} = \$0.05 \quad (\text{A7})$$

In other words, under these assumptions, \$1 invested today in a retirement savings plan will be worth \$0.07 (\$1.02-\$0.95) more after five years than if it had been invested in a non-tax-assisted instrument. This difference is equal to the lost tax revenue for the

²³ Note that when the marginal tax rate is constant, the product term in equations (A2) and (A4) is replaced by the term $(1+i(1-t))^{N-M}$.

Government. Therefore, the discounted present value of the tax expenditure associated with this benefit to the individual is \$0.05 of each dollar contributed to a retirement savings plan. This is the same result as that in the example in Section 2 of the main text.

Equivalence to the Method Used in the Main Text

If we assume that the rate of return is equal to the discount rate and that the marginal tax rate is constant, then the present-value tax expenditure formulas for the two methods are as follows:

$$\text{Benefit Method : } P_{BM} = \frac{C(1-t)}{(1+r)^{N-M}} \left[(1+r)^{N-M} - (1+r(1-t))^{N-M} \right] \quad (\text{A8})$$

$$\text{Tax Cost Method : } P_{TCM} = C(1-t)rt \sum_{j=M+1}^N \frac{(1+r(1-t))^{j-M-1}}{(1+r)^{j-M}} \quad (\text{A9})$$

If we multiply equation (A9) by $(1+r)^{N-M}/(1+r)^{N-M}$, we obtain:

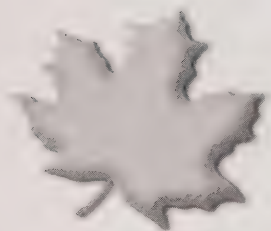
$$\begin{aligned} P_{TCM} &= \frac{C(1-t)}{(1+r)^{N-M}} rt \sum_{j=M+1}^N \frac{(1+r(1-t))^{j-M-1} (1+r)^{N-M}}{(1+r)^{j-M}} \\ &= \frac{C(1-t)}{(1+r)^{N-M}} rt \sum_{j=M+1}^N (1+r(1-t))^{j-M-1} (1+r)^{N-j} \end{aligned} \quad (\text{A10})$$

Comparing equations (A8) and (A10) we can cancel the $C(1-t)/(1+r)^{N-M}$ term. Therefore we need to show that:

$$\left[(1+r)^{N-M} - (1+r(1-t))^{N-M} \right] \stackrel{?}{=} rt \sum_{j=M+1}^N (1+r(1-t))^{j-M-1} (1+r)^{N-j} \quad (\text{A11})$$

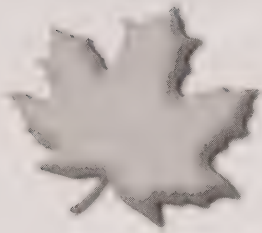
By noting that the right-hand side of equation (A11) resembles a geometric series of the form $\sum ap^{\alpha}q^{\beta}$ where α is increasing and β is decreasing we can show that the right-hand side simplifies to:

$$\begin{aligned} RHS &= \frac{rt \left[(1+r)^{N-M} - (1+r(1-t))^{N-M} \right]}{(1+r) - (1+r(1-t))} \\ &= \frac{rt \left[(1+r)^{N-M} - (1+r(1-t))^{N-M} \right]}{r(1 - (1-t))} \\ &= \frac{t \left[(1+r)^{N-M} - (1+r(1-t))^{N-M} \right]}{t} \\ &= (1+r)^{N-M} - (1+r(1-t))^{N-M} \\ &= LHS \end{aligned} \quad (\text{A12})$$



TAX EXPENDITURES AND EVALUATIONS

2002



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2002



Department of Finance
Canada

Ministère des Finances
Canada

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PREFACE

Since 2000 the tax expenditure report has been separated into two documents. This document, *Tax Expenditures and Evaluations*, is published on an annual basis. It provides estimates and projections for broadly defined tax expenditures as well as evaluations and descriptive papers addressing specific tax measures.

This year's edition includes two papers, "The Impact of the Canada Child Tax Benefit on the Incomes of Families With Children" and "Special Federal Tax Assistance for Charitable Donations of Publicly Traded Securities," which provide additional information on these two tax measures.

The companion document, *Tax Expenditures: Notes to the Estimates/Projections*, was published in 2000. It is a reference document for readers who wish to know more about how the estimates and projections are calculated and who want descriptions of or information on the objectives of particular tax expenditures. New tax expenditures are described in the relevant section of this document.

PART 1

**TAX EXPENDITURES:
ESTIMATES AND PROJECTIONS**

ESTIMATES AND PROJECTIONS OF TAX EXPENDITURES

The principal function of the tax system is to raise the revenues necessary to fund government expenditures. The tax system is also an instrument of policy that serves to advance a wide range of economic, social, environmental, cultural and other public policy objectives. Tax measures that reflect such objectives include exemptions, deductions, rebates, deferrals and credits, and are typically referred to as “tax expenditures.”

In order to define tax expenditures, it is necessary to establish a “benchmark” tax structure that applies the relevant tax rates to a broadly defined tax base – e.g., personal income, business income or consumption. Tax expenditures are then defined as deviations from this benchmark. It is important to recognize that reasonable differences of opinion exist as to the structure of the benchmark tax system and hence as to what constitutes a tax expenditure. For example, a deduction for expenses incurred in earning income is generally considered as part of the benchmark and thus not as a tax expenditure. But in some cases the deduction may confer some personal benefit, making its classification ambiguous.

This report takes a broad approach and lists as tax expenditures all tax measures that deviate from a basic benchmark tax system. It also includes measures that would not generally be considered to be tax expenditures and would therefore be included in the benchmark tax system. These are shown as “memorandum items.” For instance, the dividend tax credit is listed under this heading because its purpose is to reduce or eliminate the double taxation of income earned by corporations and distributed to individuals through dividends. This approach – listing both broadly defined tax expenditures and memorandum items – provides maximum information to the reader.

Caveats

Care must be taken in interpreting the estimates and projections of tax expenditures in the tables for the following reasons.

- The estimates and projections indicate the potential revenue gain from removing individual tax measures. They are developed assuming the underlying tax base would not be affected by removal of the measure – an assumption that is unlikely to be true in practice as individual behaviour, overall economic activity and other government policies could change along with the specific tax provision.
- The cost of each tax measure is determined separately, assuming that all other tax provisions remain unchanged. Many of the tax expenditures do, however, interact with each other, so the impact of several tax provisions at once cannot generally be calculated by adding up the estimates and projections for each provision.
- The federal and provincial income tax systems interact with each other to various degrees. As a result, changes to tax expenditures in the federal system may have consequences for provincial tax revenues. In this publication, however, any such

provincial effects are not taken into account – that is, the tax expenditure estimates and projections address strictly the federal tax system.

- In the case of the harmonized sales tax in effect in Nova Scotia, New Brunswick, and Newfoundland and Labrador, only the federal cost of the tax expenditures is reported.
- The tax expenditure estimates and projections presented in this document are developed using the latest available taxation data. Revisions to the underlying data as well as improvements to the methodology can result in substantial changes to the value of a given tax expenditure in successive publications.

It should also be noted that, on occasion, the estimated or projected change in the value of a tax expenditure in this report does not coincide with the fiscal impact of a measure estimated in the budget. For example, this report shows that the cost of the partial inclusion rate for capital gains increased by \$1 billion between 2000 and 2001. This increase is due to the reduction in the inclusion rate from three-quarters to one-half over the same period. However, the 2000 *Economic Statement and Budget Update* estimated that the change would reduce revenues by only \$300 million in 2001. For a defined set of transactions, the reduction in the capital gains inclusion rate *raises* tax expenditures and *lowers* budgetary revenues by the same amount. But the lower inclusion rate is expected to induce additional realizations, which increases both revenue and the tax expenditure. In other words, the rate reduction and the additional realizations have offsetting impacts on budgetary revenues (estimated in the budget) while they both raise the tax expenditure estimates and projections (reported in this document).

A second example is the change in the partial exemption of scholarship, fellowship and bursary income that was announced in the 2000 budget. In the budget, the cost of this change was estimated at \$30 million for the 2000 tax year. In contrast, the associated tax expenditure provided in this document shows an increase of only \$22 million in 2000 compared to the previous year (to \$28 million from \$6 million). In this case, the apparent disparity is largely a matter of presentation. The 2000 budget estimate of \$30 million consists of an additional \$21 million that would be claimed by students and a further \$9 million that would either be carried forward or transferred to parents and claimed by them. The amount claimed directly by students and the amount either carried forward or transferred are shown separately in this report.

WHAT'S NEW IN THE 2002 REPORT

A number of new tax measures have been introduced since last year's report and others have been modified. These are described below.

Personal Income Tax

Apprentice Vehicle Mechanics' Tools Deduction

- Effective January 2002 apprentice vehicle mechanics are eligible to receive an income tax deduction for the portion of the cost of new tools acquired for the on-the-job component of their apprenticeship that exceeds \$1,000 or 5% of the apprenticeship income, whichever is higher.
- Any part of the eligible deduction that is not taken in the year in which the tools are acquired can be carried forward and deducted in subsequent taxation years.

Increasing Assistance to Students

- After 1996, students can deduct from their income tuition assistance provided under Part II of the Employment Insurance Act and certain government programs for adult basic education to the extent that these amounts are included in their income.
- Moreover, effective January 2002 students who receive financial assistance for post-secondary education under certain government training programs are eligible to claim the education tax credit.

Promoting Sustainable Woodlot Management

- Commercial woodlot operations that are farming businesses are eligible to make an intergenerational transfer of farm property on an income tax-deferred rollover basis after December 10, 2001.

Donations of Certain Publicly Traded Securities

- On October 12, 2001, the Government announced that it would make permanent the 1997 budget measure that provided special tax assistance for donations of certain publicly traded securities to public charities. The measure was originally set to expire on December 31, 2001.
- Similar treatment is accorded to employment benefits in respect of donations of eligible securities acquired through stock options, to parallel the treatment of donations to eligible charities. This measure was also made permanent.

Corporate Income Tax

Improving Tax Incentives for Renewable Energy and Energy Efficiency

- The definition of a small hydroelectric project in Class 43.1 has been expanded from projects with an annual average generating capacity of up to 15 megawatts (MW) to projects with a maximum annual rated capacity of up to 50 MW, effective after December 10, 2001.
- Class 43.1 now includes equipment used to generate electricity from “blast furnace gas,” effective after December 31, 2000.

DESCRIPTION OF NEW TAX EXPENDITURES

All tax provisions introduced since *Tax Expenditures: Notes to the Estimates/Projections* was last published in September 2000 are described below.

Personal Income Tax

Education

Apprentice Vehicle Mechanics' Tools Deduction

Objective: To allow apprentice vehicle mechanics to deduct from their income the extraordinary portion of the cost of new tools they have to provide as a condition of their on-the-job training. (*The Budget Plan, 2001*)

Starting in 2002 apprentice vehicle mechanics can deduct the extraordinary portion of the cost of new tools they purchase in the taxation year or in the last three months of the previous taxation year if the apprentice is in his or her first year.

In order to be eligible, the apprentice must be registered with a provincial or territorial body in a program leading to designation as a mechanic licensed to repair automobiles, aircraft or any other self-propelled motorized vehicle.

The eligible deduction is the portion of tool costs that exceed \$1,000 or 5% of the individual's apprenticeship income for the year, whichever is greater. Any part of the eligible deduction that is not taken in the year can be carried forward and deducted in subsequent taxation years. The apprentice's employer must certify that the tools are required as a condition of, and for use in, the apprenticeship.

The cost of the individual's tools for other income tax purposes will be the acquisition cost less the deductible portion of that cost. If an individual (or a non-arm's-length person) disposes of the tools for proceeds in excess of this reduced cost, the excess amount will be included in income in the year of disposition. However, tools will be eligible for the existing rollovers that apply to transfers of property to a corporation or a partnership.

The individual will also be eligible for a rebate of the goods and services tax/harmonized sales tax paid on the portion of the purchase price of the new tools that is deducted in computing employment income.

These measures apply to the 2002 and subsequent taxation years.

Adult Basic Education – Tax Deduction for Tuition Assistance

Objective: To provide a taxable income deduction for tuition fees for adult basic education. (*The Budget Plan, 2001*)

Individuals may deduct, in computing their taxable income, the amount of tuition assistance received for adult basic education or other programs that are ineligible for the tuition tax credit, to the extent that this assistance has been included in their income. In order to be eligible, the tuition assistance must be provided under:

- Part II of the Employment Insurance Act (or a similar program provided by a province or territory under a Labour Market Development Agreement); or
- another training program established under the authority of the Minister of Human Resources Development, such as the Employability Assistance for People with Disabilities initiative or the Opportunities Fund for Persons with Disabilities.

This measure was made retroactive to 1997 and subsequent taxation years.

Employment

Canada and Quebec Pension Plan Deduction for the Self-Employed

Objective: This measure ensures that self-employed individuals are not disadvantaged relative to an owner-operator who is also an employee of the corporation. (*Economic Statement and Budget Update, October 2000*)

Under the Canada Pension Plan and Quebec Pension Plan (C/QPP), self-employed individuals are required to pay both the employer and employee portion of C/QPP contributions. As of January 1, 2001, self-employed individuals are permitted to deduct the portion of C/QPP contributions that represent the employer's share.

Farming and Fishing

Promoting Sustainable Woodlot Management

Objective: To facilitate intergenerational rollovers of commercial woodlot operations that are farming. (*The Budget Plan, 2001*)

A taxpayer may make an intergenerational transfer of farm property in Canada on an income tax-deferred rollover basis, if the property was principally used in a farming business in which the taxpayer or a family member was actively engaged on a regular and continuous basis. Similar rules apply to intergenerational transfers of shares of family farm corporations and interests in family farm partnerships.

The operation of a commercial woodlot may, in certain circumstances, constitute a farming business. However, the intergenerational rollovers are generally not available for commercial woodlots because, aside from monitoring, the management of a woodlot may not demand regular and continuous activity. As a result, many commercial woodlot owners are subject to income tax on intergenerational transfers of their woodlots. This can be detrimental to the sound management of the resource if woodlots are harvested prematurely to pay the tax.

Where the regular and continuous activity test set out in the existing rollover rules cannot be met, a new test will be implemented strictly for the purpose of applying those rules to commercial woodlot operations. The new test allows an intergenerational rollover where the conditions of the existing rollover rules are otherwise met and the transferor or a family member is actively involved in the management of the woodlot to the extent required by a prescribed forest management plan.

Specific criteria for prescribed forest management plans will be developed in consultation with interested parties. For transfers that occur before these criteria are developed and prescribed, there must exist a plan providing for the necessary attention to a woodlot's growth, health, quality and composition.

This measure applies to transfers that occur after December 10, 2001.

Small Business

Federal Tax Credit for Flow-Through Share Investors

Objective: To promote mineral exploration activity, particularly in rural communities across Canada that depend on mining.
(*Economic Statement and Budget Update*, October 2000)

This temporary investment tax credit is available to individuals (other than trusts) at a rate of 15% of specified surface "grass root" mineral exploration expenses incurred in Canada pursuant to a flow-through share agreement. The flow-through share investor can use this tax credit to reduce federal tax otherwise payable. This new credit applies to specified expenses incurred by an individual pursuant to a flow-through share agreement made after October 17, 2000, in respect of expenses incurred by the corporation after that day and before 2004. This non-refundable credit reduces the cumulative Canadian exploration expense pool for years following the year in which it is claimed.

THE TAX EXPENDITURES

Tables 1 to 3 provide tax expenditure values for personal income tax, corporate income tax and the goods and services tax (GST) for the years 1997 to 2004.

Estimates and projections are developed using the methodology set out in Chapter 1 of *Tax Expenditures: Notes to the Estimates/Projections*.¹

In this case, however, the economic variables used to develop the estimates and projections are based on the private sector average forecast presented in the December 2001 budget.

Personal income tax expenditures are grouped according to functional categories. This grouping is provided solely for presentational purposes and is not intended to reflect underlying policy considerations.

All estimates and projections are reported in millions of dollars. The letter “S” indicates that the cost is less than \$2.5 million, “n.a.” signifies that data is not available to support a meaningful estimate/projection, and a dash means that the tax expenditure is not in effect. The inclusion in the report of items for which estimates and projections are not available is warranted given that the report is designed to provide information on measures included in the tax system even if it is not always possible to provide their revenue impacts.

Work is continuing to obtain quantitative estimates and projections where possible. For example, in prior editions of this publication, the corporate income tax expenditure relating to gifts of cultural property and ecologically sensitive land was included with gifts to the Crown and was reported under “Deductibility of gifts to the Crown.” For 1997 and subsequent years it is possible to determine the tax expenditure for gifts of cultural property and ecologically sensitive land separate from gifts to the Crown. As a result, in this publication a new corporate income tax expenditure has been introduced under “Deductibility of gifts of cultural property and ecologically sensitive land.” At this time similar data is not available in respect of personal income tax.

¹ Available on the Department of Finance Web site at www.fin.gc.ca.

Table 1

Personal Income Tax Expenditures*†

Personal Income Tax Expenditures	Estimates			Projections				
	1997	1998	1999	2000	2001	2002	2003	2004
	(\$ millions)							
Culture and recreation								
Deduction for clergy residence	58	55	56	56	52	52	52	52
Deduction for certain contributions by individuals who have taken vows of perpetual poverty	S	S	S	S	S	S	S	S
Deduction for Canadian art purchased by unincorporated businesses	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Assistance for artists	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deduction for artists and musicians	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of capital gains on gifts of cultural property	7	11	16	14	10	10	10	10
Education								
Tuition fee credit ^{1,2}	240	260	295	295	255	260	275	295
Education credit ^{2,3}	77	120	130	125	220	235	255	265
Transfer of education and tuition fee credits ^{2,4}	300	335	330	335	445	460	485	505
Carry-forward of education and tuition fee credits ⁵	—	10	74	145	265	340	405	420
Student loan interest credit ⁶	—	46	59	60	61	62	62	62
Registered education savings plans (RESPs) ⁷	32	30	40	80	78	105	130	165
Partial exemption of scholarship, fellowship and bursary income ⁸	5	6	6	28	24	25	25	25
Deduction of teachers' exchange fund contributions	S	S	S	S	S	S	S	S
Adult basic education — tax deduction for tuition assistance	—	—	—	—	—	10	5	5
Apprentice vehicle mechanics' tools deduction ⁹	—	—	—	—	—	10	10	10

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, published in 2000 and available on the Department of Finance Web site (www.fin.gc.ca), for a discussion of the reasons for this.

The February 2000 budget fully indexed, effective January 1, 2000, those parameters that were previously only partially indexed. The *Economic Statement and Budget Update* of October 2000 reduced all personal income tax rates and eliminated the deficit reduction surtax, effective January 1, 2001. These rate reductions lower the value of exemptions and deductions, as well as those non-refundable tax credits whose values depend on a tax rate, in the year the change was introduced, but this is generally followed by growth in their value over time in line with increases in the size of incomes.

Table 1

Personal Income Tax Expenditures (*cont'd*)

	Estimates			Projections				
	1997	1998	1999	2000	2001	2002	2003	2004
	(\$ millions)							
Employment								
Canada and Quebec Pension Plan deduction for the self-employed ¹⁰	-	-	-	-	165	180	190	200
Deduction of home relocation loans	S	S	S	S	S	S	S	S
Tax-free amount for emergency service volunteers ¹¹	4	14	14	14	14	14	14	14
Northern residents deductions	130	135	135	130	120	120	120	120
Overseas employment credit	37	62	53	54	55	56	56	56
Employee stock options ¹²	200	215	295	395	565	575	585	595
Non-taxation of strike pay	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of salary through leave of absence/sabbatical plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Employee benefit plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of certain non-monetary employment benefits	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Family								
Spousal credit ¹³	1,155	1,100	1,125	1,240	1,205	1,260	1,300	1,350
Equivalent-to-spouse credit ¹³	425	430	465	500	485	500	510	525
Infirm dependant credit ¹⁴	7	7	7	8	10	10	10	10
Caregiver credit ¹⁵	-	24	29	35	45	48	50	50
Canada Child Tax Benefit (CCTB) ¹⁶	5,325	5,625	5,930	6,610	7,360	7,870	8,050	8,405
Deferral of capital gains through transfers to a spouse, spousal trust or family trust	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Farming and fishing								
\$500,000 lifetime capital gains exemption for farm property ¹⁷	355	365	365	325	225	230	235	235
Net Income Stabilization Account								
Deferral of tax on government contributions ¹⁸	93	76	94	86	77	80	79	78
Deferral of tax on bonus and interest income	22	30	35	40	39	43	47	50
Taxable withdrawals	-37	-60	-100	-100	-100	-99	-100	-100
Deferral of income in drought regions ¹⁹	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of income from destruction of livestock	S	S	S	S	S	S	S	S
Deferral of income from grain sold through cash purchase tickets ²⁰	6	12	51	8	-29	9	9	9
Deferral of capital gains through 10-year reserve	9	S	S	S	S	S	S	S

Table 1

Personal Income Tax Expenditures (*cont'd*)

Personal Income Tax Expenditures (cont'd)	Estimates			Projections				
	1997	1998	1999	2000	2001	2002	2003	2004
	(\$ millions)							
Deferral of capital gains through intergenerational rollovers of family farms ²¹	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemption from making quarterly tax instalments	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cash-basis accounting	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Flexibility in inventory accounting	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Federal-provincial financing arrangements								
Quebec abatement ²²	2,560	2,730	2,860	3,175	3,040	3,140	3,230	3,340
Transfers of income tax room to provinces ²²	11,215	12,105	12,920	14,105	13,540	13,980	14,395	15,115
General business and investment								
Partial inclusion of capital gains ²³	925	935	970	1,515	2,505	2,395	2,315	2,340
Deduction of limited partnership losses	185	110	145	150	140	140	150	155
Investment tax credits	24	25	20	20	21	21	22	22
Deferral of capital gains through five-year reserve	17	28	15	15	11	11	11	11
Deferral of capital gains through rollovers ²⁴	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral through billed-basis accounting by professionals	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deduction of accelerated tax depreciation ²⁵	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
\$1,000 capital gains exemption on personal-use property ²⁶	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
\$200 capital gains exemption on foreign exchange transactions	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Taxation of capital gains upon realization ²⁷	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Health								
Non-taxation of business-paid health and dental benefits ²⁸	1,625	1,650	1,735	1,850	1,690	1,725	1,725	1,725
Disability tax credit (DTC) ²⁹	270	265	270	310	395	400	400	400
Medical expense tax credit ³⁰	355	405	495	545	550	580	625	665
Medical expense supplement for earners ^{31, 32}	23	26	34	38	48	52	55	58

Table 1

Personal Income Tax Expenditures (*cont'd*)

	Estimates			Projections				
	1997	1998	1999	2000	2001	2002	2003	2004
	(\$ millions)							
Income maintenance and retirement								
Non-taxation of Guaranteed Income Supplement and spouse's allowance benefits	290	290	280	280	275	270	280	280
Non-taxation of social assistance benefits ³³	455	395	325	300	270	255	245	235
Non-taxation of workers' compensation benefits	630	620	610	615	570	565	560	585
Non-taxation of amounts received as damages in respect of personal injury or death	18	17	17	18	16	16	16	15
Non-taxation of veterans' allowances, civilian war pensions and allowances, and other service pensions (including those from Allied countries) ³⁴	S	S	S	S	S	S	S	S
Non-taxation of veterans' disability pensions and support for dependants	155	155	160	160	145	140	140	140
Treatment of alimony and maintenance payments ³⁵	240	215	170	155	165	165	165	165
Age credit	1,350	1,350	1,340	1,355	1,315	1,365	1,410	1,445
Pension income credit	385	405	415	415	395	400	410	415
Saskatchewan Pension Plan	S	S	S	S	S	S	S	S
Registered retirement savings plans (RRSPs) ³⁶								
Deduction for contributions	6,635	6,560	6,965	7,180	6,930	7,395	7,930	8,360
Non-taxation of investment income ³⁷	4,960	4,530	6,005	5,550	5,560	6,055	7,095	7,645
Taxation of withdrawals	-2,425	-2,795	-2,665	-2,760	-2,715	-2,915	-3,140	-3,335
Net tax expenditure	9,170	8,295	10,305	9,970	9,775	10,535	11,885	12,670
Registered pension plans (RPPs) ³⁶								
Deduction for contributions	5,170	4,490	5,030	4,890	4,430	4,470	4,525	4,495
Non-taxation of investment income	8,305	8,200	10,690	9,320	8,755	8,975	9,865	9,910
Taxation of withdrawals	-5,540	-5,985	-6,695	-6,985	-6,925	-7,485	-8,155	-8,725
Net tax expenditure	7,935	6,705	9,025	7,225	6,260	5,960	6,235	5,680
Supplementary Information:								
Present value of RRSPs and RPPs ^{38, 39, 40}	8,030	7,515	8,245	8,380	7,930	8,270	8,650	8,950

Table 1 Personal Income Tax Expenditures (cont'd)

[illegible]

Personal Income Tax Expenditures (cont'd)

[illegible]

Personal Income Tax Expenditures (cont'd)

Notes:

- ¹ The 1997 budget extended this credit to most mandatory ancillary fees imposed by post-secondary institutions, beginning in 1997.
- ² Projections for 2003 and 2004 reflect Ontario's "double cohort" of high school graduates in 2003.
- ³ The 1997 budget increased this credit to \$150 per month for 1997 and \$200 per month thereafter. The 1998 budget allowed part-time students to claim a part-time education amount of \$60 per month. The October 2000 *Economic Statement and Budget Update* increased this credit to \$400 per month for full-time students and \$120 per month for part-time students, effective January 1, 2001. The 2001 budget introduced a measure that extends the education tax credit, beginning in 2002, to people who receive taxable assistance for post-secondary education under certain government programs.
- ⁴ The 1997 value reflects a 50% increase in the average claim in that year.
- ⁵ The 1997 budget introduced this measure, effective for 1997 and subsequent years.
- ⁶ The 1998 budget introduced this measure, effective for 1998 and subsequent years.
- ⁷ The 1998 budget supplemented annual contributions to RESPs with a 20% grant, the Canada Education Savings Grant, beginning in 1998. While this enhancement does not represent a tax expenditure, it increases the cost of the tax expenditure to the extent that it encourages participation in the RESP program. Human Resources Development Canada's method of obtaining this information has changed. The estimates for 1998 and 1999 have been revised to include more recent information on 10-year government bonds, which is used to calculate the return on net assets.
- ⁸ The 2000 budget raised the exemption for scholarship, fellowship and bursary income from \$500 to \$3,000 for students eligible for the education credit. In addition, for 2000 and later tax years, the tax expenditure reflects the additional funds made available to students under the Canada Millennium Scholarship Foundation.
- ⁹ This tax expenditure was introduced in the 2001 budget and applies to the 2002 and subsequent tax years.
- ¹⁰ This measure was introduced in the October 2000 *Economic Statement and Budget Update*, effective 2001. The tax expenditure estimates the incremental cost of allowing self-employed individuals to deduct the employer share of their Canada/Quebec Pension Plan contributions paid for their own coverage, relative to a benchmark system in which no such deduction is provided. Prior to this measure, self-employed individuals could claim a non-refundable credit on this share of their Canada/Quebec Pension Plan contributions. As a result, the actual cost of the change is lower than shown in this report.
- ¹¹ The 1998 budget replaced the \$500 tax-free allowance for volunteer firefighters with an exemption of up to \$1,000 for emergency service volunteers. The tax expenditure estimates and projections for the emergency service volunteer exemption include claims by firefighters after 1997.
- ¹² This tax expenditure reflects only the stock option deduction and not the deferral from income inclusion. The 2000 budget increased the stock option deduction from one-quarter to one-third. The October 2000 *Economic Statement and Budget Update* further increased this deduction from one-third to one-half.
- ¹³ The 1998 budget raised the amounts used to determine basic personal and spousal/dependent-to-spouse credits by \$500 for low-income taxpayers. The 1999 budget increased the amount by a further \$175 to \$675 and extended it to all taxpayers, effective July 1, 1999. The 2000 budget fully indexed these amounts, effective January 1, 2000, raising their credit value for the following years.
- ¹⁴ The October 2000 *Economic Statement and Budget Update* increased the amount on which this credit is based from \$2,386 to \$3,500 for 2001.
- ¹⁵ This measure was introduced in the 1998 budget.
- ¹⁶ Payments are reported on a calendar-year basis. The 1996 through 1999 budgets increased this tax benefit through increases to per-child benefit amounts, as well as through increases in the income threshold at which the National Child Benefit supplement (NCB supplement) is fully phased out and the CCTB base benefit begins to be phased out. The 2000 budget fully indexed the CCTB starting January 2000. The 2000 budget and October 2000 *Economic Statement and Budget Update* increased the CCTB base benefit by \$70 per child, including indexation, in July 2000, increased the NCB supplement by \$300 per child, including indexation, in July 2001, and increased the income threshold at which the NCB supplement is fully phased out and the base benefit begins to be phased out to \$32,000 in July 2001.
- ¹⁷ The 2000 budget reduced the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000. The October 2000 *Economic Statement and Budget Update* further reduced the capital gains inclusion rate from two-thirds to one-half, effective October 18, 2000. The decline in this tax expenditure after 1999 reflects, in part, these reductions to the inclusion rate, which reduce the value of the exemption.
- ¹⁸ This tax expenditure is highly volatile. It is projected at its historical average.

Table 1

Personal Income Tax Expenditures (cont'd)

- ¹⁹ A deferral of income is available when the herd has been reduced by at least 15% in certain prescribed drought regions. This tax expenditure was included under "Deferral of income from destruction of livestock" in previous years. However, it was not factored into the tax expenditure calculation.
- ²⁰ Estimates are based on Statistics Canada data available up to 2001, which includes cash purchase tickets for wheat, barley, oats, canola, flax and rye. Projections after 2001 are calculated as a fixed three-year historical average due to volatility of this series.
- ²¹ The change introduced in the 2001 budget for woodlots is part of this tax expenditure.
- ²² The increase from 1999 to 2000 is a result of increases in employment wages and realizations of capital gains.
- ²³ The value of this tax expenditure for 1997 reflects a 33% increase in the amount of taxable capital gains reported in that year and a 30% increase in the number of claimants. The 2000 budget reduced the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000. The October 2000 *Economic Statement and Budget Update* further reduced the capital gains inclusion rate from two-thirds to one-half, effective October 18, 2000. Increases in this tax expenditure after 1999 reflect these reductions as well as anticipated increases in capital gains realizations resulting from changes to this measure.
- ²⁴ This tax expenditure does not include measures in the 2000 budget or the October 2000 *Economic Statement and Budget Update* for rollovers of eligible small business investments.
- ²⁵ Data for unincorporated businesses is not available to estimate this tax expenditure with precision.
- ²⁶ The 2000 budget amended the rules so that the \$1,000 deemed adjusted cost base and deemed proceeds of disposition for personal-use property will not apply if the property is acquired after February 27, 2000, as part of an arrangement in which the property is donated as a charitable gift.
- ²⁷ Capital gains are taxed upon the disposition of property and not on an accrued basis, which results in a tax deferral. No data is available, as it is difficult to estimate the value of unsold assets.
- ²⁸ The 1998 budget allowed unincorporated owner-operators to deduct premiums for supplementary health care coverage against their business income to a maximum amount of \$1,500, beginning in 1998. Data upon which this tax expenditure is estimated was available up to 2000.
- ²⁹ The 2000 budget enhanced the DTC by extending eligibility to individuals requiring extensive therapy, and by expanding the list of relatives to whom the DTC can be transferred. The 2000 budget also provided a supplement of up to \$500 for children eligible for the DTC. The October 2000 *Economic Statement and Budget Update* increased the amount on which the DTC is based from \$4,293 to \$6,000 effective 2001.
- ³⁰ The 1997 budget broadened this credit to cover additional expenses, beginning in 1997. The 1999 budget further broadened this credit to include the care and education of persons with disabilities, beginning in 1999.
- ³¹ This measure was introduced in the 1997 budget.
- ³² Estimates and projections have been revised using a new methodology.
- ³³ The decline in this tax expenditure after 1997 reflects changes in the 1998 to 2000 budgets and the October 2000 *Economic Statement and Budget Update* to reduce tax rates on low-income individuals (e.g., increases in the personal amounts and the reduction in the low-income tax rate).
- ³⁴ Public Accounts data used for this tax expenditure was available up to 1999.
- ³⁵ The 1996 budget eliminated the income inclusion for recipients of child support payments and disallowed the deduction to payers for agreements made after April 30, 1997.
- ³⁶ Projected values vary from those given in last year's report due to changes in tax rates, projected contribution levels and bond rates.
- ³⁷ The estimates and projections in this report reflect new data from Statistics Canada's Survey of Financial Security (SFS), which is more comprehensive than the previous data used. The SFS provides data on asset levels in RRSPs and registered retirement income funds (RRIFs). Estimates and projections in previous reports were based on data contained in the Statistics Canada publication *Pension Plans in Canada* (PPIC), which provides an estimate of assets in non-self-administered RRSPs only – it does not capture assets in self-administered RRSPs or RRIFs. In 1999 the SFS indicated that RRSP and RRIF assets totalled \$408 billion, compared to the PPIC RRSP asset estimate of \$260 billion. Using the SFS data increases the annual tax expenditure estimates and projections for RRSPs by \$1.5 billion to \$2 billion compared to using the lower PPIC RRSP asset estimate.

³⁸ The present-value estimates reflect the lifetime cost of a given year's contributions. This definition is different from that used for the cash-flow estimates, and thus the two sets of estimates are not directly comparable. Further information on how these estimates are calculated is contained in the paper "Present-Value Tax Expenditure Estimates of Tax Assistance for Retirement Savings," which was published in the 2001 edition of this report.

³⁹ The tax expenditure per dollar of contribution is relatively stable from 1997 to 2000, then it drops sharply in response to lower tax rates. This causes the total value of the tax expenditure to fall in 2001, despite a rise in contributions. By 2003, however, growth in contributions is projected to raise the value of the tax expenditure above its level in 2000.

⁴⁰ The estimates and projections presented in this year's report are higher than those presented last year due to higher actual and projected contribution levels and an adjustment in the calculation of tax rates.

⁴¹ This tax expenditure cannot be estimated with precision.

⁴² Although this measure does provide tax relief for individuals, there are interactions with the corporate income tax system. See the corporate income tax expenditure section of this report under "Interest credited to life insurance policies" for an estimate of the value of this tax expenditure.

⁴³ The 1996 budget reduced this credit from 20% to 15% and the purchase amount eligible for the credit from \$5,000 to \$3,500 per year, for purchases made after March 5, 1996. The purchase amount eligible for the credit was increased to \$5,000 in 1998, effective for 1998 and subsequent years.

⁴⁴ The value of this tax expenditure in 2000 and 2001 is based on preliminary information on sales of shares of labour-sponsored venture capital corporations for those years. Projections are based on 1999 tax filer data and assume sales remain constant after 2001.

⁴⁵ This provision was introduced in the 2000 budget. The October 2000 *Economic Statement and Budget Update* expanded this measure by increasing the size of small businesses eligible for the rollover, and by raising the eligible investment limit from \$500,000 to \$2 million.

⁴⁶ This measure was introduced in the October 2000 *Economic Statement and Budget Update*. This new non-refundable investment tax credit is available to individuals (other than trusts) at a rate of 15% of specified mineral exploration expenses incurred in Canada pursuant to a flow-through share agreement. The flow-through share investor can use this tax credit to reduce federal tax otherwise payable. The credit applies to eligible expenses incurred between October 18, 2000, and December 31, 2003.

⁴⁷ The decline in this tax expenditure from 1997 to 1999 reflects a decline in the volume of home sales and in the average home value. The tax expenditures after 1999 reflect the reduction in the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000, and from two-thirds to one-half, effective October 18, 2000.

⁴⁸ This tax expenditure includes both gifts to the Crown and donations to other charities, as they were treated equivalently in the Income Tax Act beginning in 1997.

⁴⁹ On October 12, 2001, the Government announced its intention to make permanent the 1997 budget measure that provided special tax assistance for donations of certain securities to public charities. The 2000 budget proposed the same tax assistance for capital gains arising from donations of ecologically sensitive land. At the time of last year's publication, data was only available for the first of these measures. This year data is available for both measures for tax year 2000, but only in aggregate form. As a consequence, the tax expenditure estimates and projections for these two measures cannot be separated. The tax expenditure shown includes only the impact of the reduced inclusion rate for capital gains arising from donations; there is an additional revenue loss arising from the charitable donations credit. Further information about this measure is provided in a special report included in this document.

⁵⁰ The 1997 to 2000 figures are based on income tax data. The lower figure for 2000 relative to last year's publication reflects data for tax year 2000 not previously available. Given recent volatility in capital markets, the capital gains arising from these donations are assumed to be constant after tax year 2000. The decline of the tax expenditure figures after tax year 2000 reflects the reduction in the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000, and from two-thirds to one-half, effective October 18, 2000.

⁵¹ Revisions to the Canada Elections Act in May 2000 extended the 75% political contribution tax credit from the first \$100 contributed in a year to the first \$200 contributed. The figures from 2000 onwards reflect these changes. The higher projected value for 2000 reflects evidence from historical data that the level of political contributions, and hence the value of the tax expenditure, rises in the year of a federal election.

⁵² This provision was introduced in the 1999 budget, effective for qualifying retroactive lump-sum payments received after 1994. Estimates for 1997 and 1998 reflect the costs associated with qualifying payments received in those years, even though claims were not processed before 2000.

Table 1

Personal Income Tax Expenditures (*cont'd*)

- ⁵³ Estimates and projections assume that the total amount of lottery and horse racing winnings would be included in income and subject to tax. However, there is some uncertainty regarding the proper benchmark tax system in this area. For example, if the benchmark system included taxation of winnings, it might also have to include a deduction for the purchase cost of tickets. A threshold below which winnings would not be taxable might also be necessary, due to the large administrative cost of taxing very small prizes. In addition, proceeds from the sale of lottery tickets are an important source of funds for provincial governments and not-for-profit organizations. As a result, there is already an element of taxation to lottery and gambling proceeds. This measure is therefore included as a memorandum item.
- ⁵⁴ The increase of this tax expenditure in 1999 reflects the recent availability of data on casino and video lottery winnings, which Statistics Canada began collecting starting with fiscal year 1997-98.
- ⁵⁵ Allowances for members of Parliament and senators are no longer tax-exempt, starting January 2001.
- ⁵⁶ The estimates and projections in this report reflect a new methodology. The 1998 budget increased the child care expense deduction limit from \$5,000 to \$7,000 for children under age 7, and from \$3,000 to \$4,000 for children age 7 to 16. The 2000 budget increased the deduction limit from \$7,000 to \$10,000 for children eligible for the disability tax credit.
- ⁵⁷ The 1998 budget enhanced the moving expense deduction by including certain costs of maintaining a vacant former residence (including mortgage interest and property taxes) and other miscellaneous relocation expenses.
- ⁵⁸ This tax expenditure applies to a subset of resource-related deductions. Data was available for 1997 to 2001 on the volume of reclassified shares, and this data was used to calculate estimates. Due to volatility, the projections for 2002 to 2004 are based on a three-year historical average.
- ⁵⁹ The expected increase in this tax expenditure is in line with the historical trend.
- ⁶⁰ This measure was introduced in the 1998 budget. The 1999 budget extended this measure to all taxpayers, effective July 1, 1999. The 1999 budget increased the tax expenditures associated with the basic personal credit and the spousal/equivalent-to-spouse credits and eliminated the supplementary low-income credit.

Table 2

Corporate Income Tax Expenditures*

Corporate Income Tax Expenditures	Estimates		Projections ¹						
	1997	1998 ²	1999	2000	2001	2002	2003	2004	
	(\$ millions)								
Tax rate reductions									
Small businesses tax rate ³	2,820	2,895	3,255	4,055	3,575	2,605	2,960	2,795	
Manufacturing and processing allowance ⁴	1,735	1,720	2,090	2,240	1,935	1,100	775	110	
Low tax rate on general income of small businesses ⁵	—	—	—	—	60	60	45	15	
Low tax rate for credit unions ⁶	41	39	39	51	44	31	35	33	
Exemption from branch tax for transportation, communications, banking and iron ore mining corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Exemption from tax for international banking centres	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	

Tax credits

Investment tax credits

Scientific research and experimental development investment tax credit

Atlantic investment tax credit

Investment tax credits carried back

Investment tax credits claimed in current year but earned in prior years

Political contribution tax credit

Canadian film or video production tax credit⁷Film or video production services tax credit⁷**Exemptions and deductions**Partial inclusion of capital gains⁸

Net impact of the resource allowance and the non-deductibility of

Crown royalties and mining taxes⁹

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, published in 2000 and available on the Department of Finance Web site (www.fin.gc.ca), for a discussion of the reasons for this.

Corporate Income Tax Expenditures (cont'd)

[illegible]

Table 2

Corporate Income Tax Expenditures (*cont'd*)

Corporate Income Tax Expenditures (cont. a)								
	Estimates		Projections ¹					
	1997	1998 ²	1999	2000	2001	2002	2003	2004
	(\$ millions)							
International								
Non-taxation of life insurance companies' world income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemptions from non-resident withholding tax ²¹								
Dividends	200	200	215	205	225	215	220	270
Interest								
On deposits	390	405	410	500	470	440	460	480
On long-term corporate debt	140	145	150	130	120	115	120	125
Other ²²	340	355	360	385	360	335	350	370
Rents and royalties								
Copyright royalties	20	24	23	22	25	26	28	30
Royalties for the use of, or right to use, other property	15	17	21	20	19	21	22	23
Research and development royalties	S	S	S	S	S	S	S	S
Natural resource royalties	S	S	S	S	S	S	S	S
Rents from real property	S	S	S	S	S	S	S	S
Management fees	38	43	43	43	48	51	54	58
Estate or trust income	15	15	16	32	33	34	36	39
Exemption from Canadian income tax of income earned by non-residents from the operation of a ship or aircraft in international traffic	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Other items								
Transfer of income tax room to provinces in respect of shared programs	860	895	935	1,160	1,120	1,000	1,215	1,375
Interest credited to life insurance policies ²³	93	97	98	91	72	75	78	80
Non-taxation of registered charities	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of other non-profit organizations ²⁴	88	76	83	90	91	90	94	96
Income tax exemption for provincial and municipal corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of certain federal Crown corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Aviation fuel excise tax rebate ²⁵	n.a.	n.a.	n.a.	n.a.	—	—	—	—
Surtax on the profits of tobacco manufacturers ²⁶	-68	-74	-70	-70	-80	-85	-85	-85
Temporary tax on the capital of large deposit-taking institutions ²⁷	-55	-61	-61	-51	—	—	—	—

Corporate Income Tax Expenditures (cont'd)

[illegible]

Corporate Income Tax Expenditures (*cont'd*)

Notes:

- ¹ Unless otherwise indicated in the footnotes, changes in the projections from those in last year's edition of this document result from changes in the explanatory economic variables upon which the projections are based. Projections for 2001 and subsequent years reflect the impact of the reduction in the general corporate tax rate from 28% to 27% on January 1, 2001, 25% on January 1, 2002, 23% on January 1, 2003, and 21% on January 1, 2004. The corporate surtax raises these rates by 1.12 percentage points.
- ² 1998 estimates are based on preliminary data.
- ³ The increase in the tax expenditure from 1997 to 2000 is attributable to a large increase in projected taxable income during this period. The reduction in the tax expenditure starting in 2001 results from reductions in the general corporate tax rate. The significant decrease in 2002 results from an expected decrease in income eligible for this lower rate.
- ⁴ Although this tax expenditure will be effectively eliminated on January 1, 2004, when the general corporate tax rate is reduced to 21%, many firms reporting income in the 2004 tax year will earn a portion of that income in the 2003 calendar year, before the tax expenditure is effectively eliminated.
- ⁵ This measure was announced in the 2000 budget and became effective January 1, 2001. On that date the general federal corporate income tax rate on income between \$200,000 and \$300,000 earned by a Canadian-controlled private corporation from an active business carried on in Canada was reduced to 21%. The lower rate on the general income of small businesses and the change in the general federal tax rate effective January 1, 2001, only partially affect the projection for tax year 2001 since many firms reporting income in the 2001 tax year earned a portion of that income in the 2000 calendar year, before the rate reductions were introduced. Although this tax expenditure is effectively eliminated on January 1, 2004, when the general income tax rate is reduced to 21%, many firms reporting income in the 2004 tax year will earn a portion of that income in the 2003 calendar year, before the tax expenditure is effectively eliminated.
- ⁶ Credit unions are eligible for the lower general federal tax rate of 12% provided to small businesses.
- ⁷ The variations from last year's estimates and projections are attributable to the availability of new data.
- ⁸ The increase of the expenditure in 2000 reflects a projected increase in capital gains and the reduction in the capital gains inclusion rate from three-quarters to one-half during 2000.
- ⁹ A benchmark tax system would allow deduction of Crown royalties and provincial mining taxes paid, but would not include a resource allowance. Therefore, a net tax expenditure has been calculated based on the non-deductibility of Crown royalties and provincial mining taxes and the provision of a resource allowance.
- ¹⁰ Additions to depletion pools were eliminated as of January 1, 1990. As a result, the declining value of this tax expenditure reflects the fact that these pools are being drawn down, albeit subject to successor rule limitations where applicable.
- ¹¹ The decline in this tax expenditure starting in 2001 results from the reduction in the general corporate tax rate and fluctuations in projected taxable income.
- ¹² In prior editions of this publication, the tax expenditure relating to gifts of cultural property and ecologically sensitive land was reported under "Deductibility of gifts to the Crown."
- ¹³ This treatment should result in a negative tax expenditure since the deduction of an expense incurred to earn income is denied. Under the benchmark tax system, advertising expenses in foreign media incurred to gain or produce income from a business or property would be deductible whether targeted at foreign or domestic markets.
- ¹⁴ The tax measures in this section allow a deferral of income taxes from the current to a later tax year. The publication *Tax Expenditures: Notes to the Estimates/Projections* provides details on the content of each deferral item.
- ¹⁵ The amount of this tax expenditure can fluctuate from year to year depending upon the amount of current-year losses and the availability of income against which to apply these losses.
- ¹⁶ The amount of this tax expenditure can fluctuate significantly from year to year depending primarily upon the level of construction activity.
- ¹⁷ This item was referred to in earlier tax expenditure publications as "Available for use."

Table 2

Corporate Income Tax Expenditures (cont'd)

- ¹⁸ The tax deferral associated with taxation of capital gains upon disposition of property, rather than on an accrual basis, represents a deviation from the benchmark tax system, and is therefore a tax expenditure.
- ¹⁹ The amount of this tax expenditure can fluctuate significantly from year to year depending upon advertising expenses claimed.
- ²⁰ This measure was introduced in 1998. The numbers are now based on data for 1998, 1999 and 2000 received from the Office of the Superintendent of Financial Institutions.
- ²¹ Estimates and projections were computed on the basis of an analysis of payments to non-residents and withholding tax collections available for 1999 and 2000, the last two years for which complete data is available. Figures for 1997 and 1998 and from 2001 to 2004 are, respectively, backward and forward projections based on the 1999 and 2000 projections. Projections for 1999 have been revised in order to reflect methodological improvements. A more detailed breakdown of payments has also been adopted, and the list of exemptions covered under each category has been reviewed.
- ²² This category includes interest paid to non-resident persons or organizations that would be exempt from income tax in Canada were they residents in Canada. Also included is interest paid under certain securities-lending arrangements exempt under subparagraph 212(1)(b)(xii) of the Income Tax Act, and interest exempt under certain other domestic and treaty provisions.
- ²³ Estimates are higher than in the last year's report because of a new methodology that better reflects modifications to the personal income tax system. The projection declines in 2000 due to lower investment income in the year. Projections are lower after 2000 due to personal income tax reductions.
- ²⁴ Estimates and projections after 1997 are lower than in last year's report due to lower interest rates and the phased-in reductions in the general corporate income tax rate.
- ²⁵ The aviation fuel excise tax rebate, which was effective for calendar years 1997 to 2000, provided an excise tax rebate on the aviation fuel used by airline companies. The rebate was limited to \$20 million per year per associated group of companies. In order to receive a rebate, a company had to agree to reduce its income tax losses by \$10 for every \$1 of rebate.
- ²⁶ The increase in this tax expenditure from 2000 to 2002 results from the increase in the tobacco manufacturers' surtax from 40% to 50% of the Part I tax on profits from tobacco manufacturing, effective April 6, 2001.
- ²⁷ This measure was first introduced in the 1995 budget and extended in subsequent budgets. The temporary tax was not extended beyond its scheduled expiry date of October 31, 2000.
- ²⁸ Estimates and projections are generally higher than in previous publications due to the availability of data for all corporations. Those in previous years had been based on a sample of corporations.
- ²⁹ This tax expenditure includes the additional 6 2/3% refundable tax on investment income as well as, for years after 2000, the Part I tax paid on investment income in excess of the benchmark rate. The increase in this expenditure after 2001 results from the increase in the difference between the Part I tax on investment income and the benchmark rate.
- ³⁰ The increases in 1998 and 2000 are due to an important increase in the capital gain dividends distribution. The projections are lower after 2000 due to the phased-in reductions in the general corporate income tax rate and the reduction in the capital gains inclusion rate.
- ³¹ The impact of loss carry-overs can fluctuate significantly from year to year depending upon the amount of current and prior years' losses and the availability of income against which to apply these losses.
- ³² Patronage dividends vary from year to year depending on decisions made by cooperatives. The projections are generally lower after 2000 due to the phased-in reductions in the general corporate income tax rate.
- ³³ The cost of the Syncrude Remission Order ("Order Respecting the Remission of Income Tax for the Syncrude Project," P.C. 1976-1026, May 6, 1976 [C.R.C. 1978 Vol. VII, c. 794]) is published annually in the Public Accounts of Canada (ISBN 0-660-177792-7).

Corporate Income Tax Expenditures (*cont'd*)

- ³⁴ Bill C-22 (An Act to Amend the Income Tax Act and Related Statutes), which contained an amendment to repeal the NRO provisions for elections made after February 27, 2000, received Royal Assent on June 14, 2001 [S.C. 2001, c. 17, s. 131]. To allow for an orderly restructuring of their operations, existing NROs are entitled to retain their status until the end of their last tax year that begins before 2003. However, existing NROs are not allowed to issue new shares, other than by way of reorganization, or increase debt levels, to finance new investments, subject to grandfathering of arrangements in writing entered into before February 28, 2000.
- ³⁵ This measure constitutes a tax expenditure because it allows a public corporation that qualifies as an investment corporation to benefit from elements of the integration system, which are usually available only to private corporations.
- ³⁶ The taxation of capital gains is affected by provisions that permit taxpayers to defer realization for tax purposes through various rollover provisions. Since the benchmark tax structure includes various rollover provisions that permit the deferral of capital gains when a corporate structure is changed, this item is identified separately for information purposes.

Table 3

GST Tax Expenditures*

	Estimates				Projections			
	1997	1998	1999	2000	2001	2002	2003	2004
	(\$ millions)							
Zero-rated goods and services								
Basic groceries ¹	2,780	2,970	3,065	3,190	3,325	3,440	3,660	3,890
Prescription drugs ¹	250	270	285	295	310	320	340	360
Medical devices ¹	95	105	110	115	120	125	130	140
Agricultural and fish products and purchases	S	S	S	S	S	S	S	S
Certain zero-rated purchases made by exporters	S	S	S	S	S	S	S	S
Non-taxable importations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Zero-rated financial services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tax-exempt goods and services								
Residential rent (long-term) ¹	1,060	1,105	1,150	1,175	1,240	1,310	1,385	1,460
Health care services ^{1, 2}	405	430	450	460	490	515	545	575
Education services (tuition) ^{1, 3}	240	240	255	270	285	295	315	335
Child care and personal services ¹	130	130	140	140	150	155	165	175
Legal aid services	20	15	15	20	20	20	20	25
Ferry, road and bridge tolls ^{1, 4}	10	10	10	10	10	15	15	15
Municipal transit ¹	75	75	80	90	95	95	105	110
Exemption for small businesses	120	125	140	150	155	160	170	180
Quick method accounting	160	165	175	190	195	195	210	225
Water and basic garbage collection services ¹	90	90	80	80	85	90	95	100
Domestic financial services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Certain supplies made by non-profit organizations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication

Tax Expenditures: Notes to the Estimates/Projections, published in 2000 and available on the Department of Finance Web site (www.fin.gc.ca), for a discussion of the reasons for this.

GST Tax Expenditures (cont'd)

[illegible]

Table 3

GST Tax Expenditures (cont'd)

Notes:

- ¹ The national GST base model used to generate these estimates and projections has been updated and is now based on the 1998 national input-output tables from Statistics Canada (based on the North American Industry Classification System) and the latest release of the National Income and Expenditure Accounts. In some cases, these updates can cause significant changes in the estimates and projections.
- ² This tax expenditure was revised downward as a result of a change in National Accounts methodology.
- ³ This tax expenditure was revised downward as a result of a change in the proportion of commodities subject to tax.
- ⁴ The upward revision of this tax expenditure may reflect the opening of the Confederation Bridge in 1997.
- ⁵ Rebates paid to governments are not recorded as tax expenditures – the Crown's constitutional immunity from taxation is part of the benchmark tax system.
- ⁶ The housing rebate is based on information provided by Statistics Canada.
- ⁷ The new residential rental property rebate was introduced in the 2000 budget for new construction or substantial renovations commencing after February 27, 2000.
- ⁸ The book rebate was introduced in October 1996.
- ⁹ The methodology for estimating this tax expenditure, which was derived as part of a review of the Visitor Rebate Program conducted during 1997, has been updated to reflect more recent information.
- ¹⁰ The public sector body rebates are based on Canada Customs and Revenue Agency administrative data. In some cases, the use of more recent administrative data lead to revisions of these rebates.
- ¹¹ Since the value of these rebates is influenced by provincial budgetary decisions, the projected values for the relevant years are simply the values estimated for 2000.
- ¹² These rebates are offered to Aboriginal governments that have an agreement providing for a GST refund for goods and services acquired for self-government activities. The rebates are based on Canada Customs and Revenue Agency administrative data.
- ¹³ These estimates and forecasts are based on personal income tax data.
- ¹⁴ The numerical approach used to derive the tax expenditure figures is tightly integrated with the tax expenditure estimates and projections reported for the personal and corporate income tax system.
- ¹⁵ This item includes the apprentice vehicle mechanics' tools deduction.

PART 2

TAX EVALUATIONS AND RESEARCH REPORTS

**THE IMPACT OF THE CANADA CHILD TAX BENEFIT
ON THE INCOMES OF FAMILIES WITH CHILDREN**

EXECUTIVE SUMMARY

Since July 1998 the Canada Child Tax Benefit (CCTB) has been the key element of federal assistance to families with children. It has two components: a base benefit and the National Child Benefit supplement (NCB supplement).

In 2002 families with net income under the threshold of \$32,960 receive a base benefit of \$1,151 per child, with additional amounts for children under age 7 and for families with more than two children. With income over the threshold, the benefit is reduced, though at a rate low enough to ensure that middle-income families receive a measurable benefit.

The NCB supplement is the federal component of the National Child Benefit (NCB), a joint federal-provincial-territorial initiative. The supplement is targeted at low-income families, providing over \$1,000 per child for families with net income under the \$22,397 threshold in 2002. It is reduced with income above the threshold, and is fully phased out when family net income exceeds \$32,000.

This paper illustrates the direct effect of the CCTB on the incomes of Canadian families with children. The 1996 Child Tax Benefit (CTB) is compared with the 1999 and 2004 configurations of the CCTB. The parameters of each system are applied to the 1999 population, enabling a comparison while holding everything else constant.

Using this methodology, this paper shows that:

- The CCTB substantially increases the level of federal child benefits going to Canadian families. Between 1996 and 1999 benefit increases were focused on low-income families. For example, families with income under \$20,000 receive benefits of about \$3,000 under the 1999 CCTB, about 50% more than under the 1996 system. Between 1999 and 2004 benefits continue to rise, but this time enrichments extend further up the income range.
- The CCTB has a positive – and growing – impact on income distribution. As a result of the 1996 CTB, over 30% of the families with under \$10,000 in income (before child benefits) move into the \$10,000 to \$20,000 income group. With the 1999 CCTB, this increases to over 38% and with the 2004 parameters it reaches 42%.
- The CCTB reduces the incidence and depth of low income for Canadian families. Without child benefits, 16.8% of families would have been below Statistics Canada's After-Tax Low Income Cut-Off (AT-LICO) in 1999. The 1999 CCTB reduces the share to 13.1%, and the 2004 CCTB further reduces it to 12.4%. In addition, with the 2004 CCTB the average income increase for families remaining below the AT-LICO is \$3,445.

Introduction

Since July 1998 the Canada Child Tax Benefit (CCTB)¹ has been the key element of federal assistance to families with children. It is an income-tested benefit that has two components: the CCTB base benefit for low- and middle-income families, and the National Child Benefit supplement (NCB supplement), which provides low-income families with additional benefits on top of the base benefit.

The CCTB base benefit assists both low- and middle-income families with the expenses of raising children.

The NCB supplement is the federal component of the National Child Benefit (NCB), which is a joint federal-provincial-territorial initiative. The NCB initiative has three main objectives: to help prevent and reduce the depth of child poverty; to promote attachment to the labour market; and to reduce overlap and duplication by harmonizing program objectives and benefits across governments.

The purpose of this paper is to illustrate the direct effect of the CCTB on the incomes of Canadian families with children. A more comprehensive evaluation of the NCB – both the federal NCB supplement and the provincial/territorial component of the program – is currently in progress, coordinated by Human Resources Development Canada. Appendix 2 provides a brief description of the NCB evaluation.

This paper describes the evolution of the CCTB, from the previous system of assistance to families with children through to the mature CCTB system that will be in place by 2004. It then presents simulation results from Statistics Canada's Social Policy Simulation Database and Model demonstrating the impact of the child benefit systems in 1996, 1999 and 2004 on the level and distribution of family income.

Evolution of the CCTB

The Child Tax Benefit

In 1993 the Government of Canada consolidated the previous system of child tax credits and the Family Allowance into the Child Tax Benefit (CTB), which provided a monthly payment based on the number of children and the level of family income. The CTB had two parts: a base benefit, available to most Canadian families,² and the Working Income Supplement (WIS), which applied to family earnings over a limited income range. The WIS helped offset some additional costs that low-income earners with children incurred when working. Unlike the base benefit, the WIS was payable on a per family basis.

¹ Appendix 1 contains a list of acronyms and their definitions.

² Throughout this paper, "families" refers to families with children.

The 1997 budget restructured the WIS by providing benefits on a per child basis. It was also enriched: the maximum amount paid for the first child exceeded the previous 1996 maximum WIS per family benefit.

The Canada Child Tax Benefit

In July 1998 the CTB (the base benefit and the WIS) was replaced by the CCTB, consisting of the CCTB base benefit and the NCB supplement. The CCTB base benefit is identical in structure to the CTB base benefit that it replaced, but the NCB supplement is quite different from the WIS. Whereas receipt of the WIS required employment income, the NCB supplement provides a universal benefit per child to all families with incomes below a threshold, above which it is phased out.

The NCB supplement is the federal component of the NCB – a joint initiative of federal, provincial and territorial governments.³ The NCB was designed with the following three objectives:

- a) To help prevent and reduce the depth of child poverty.
- b) To promote attachment to the labour market by ensuring that NCB recipients are better off as a result of working.
- c) To reduce overlap and duplication through closer harmonization of program objectives and benefits and through simplified administration.

Under the NCB the federal government provides supplemental benefits to low-income families with children. For families receiving social assistance in most provinces and territories, these federal benefits replace part of their social assistance payments.⁴ This maintains the level of cash transfers going to families on social assistance, while increasing payments to low-income working families. Provinces and territories reallocate the newly available social assistance funds into benefits and services that further the goals of the NCB. Examples include supplementary health benefits and day care initiatives. The provinces and territories also spend additional funds – on top of the social assistance reinvestments – on these NCB programs and services.

³ i) The Government of Quebec has stated that it agrees with the basic principles of the NCB. It chose not to participate in the NCB because it wanted to assume control over income support for children in Quebec; however, it has adopted a similar approach to the NCB. Throughout this report, references to provincial positions do not include Quebec.

ii) Many First Nations also participate in the NCB.

⁴ In 1998-99 New Brunswick and Newfoundland and Labrador chose not to reduce social assistance payments by the amount of the NCB supplement. New Brunswick continued this policy in 1999-2000. In 2000-01 and 2001-02, Newfoundland and Labrador, New Brunswick and Manitoba did not recover the NCB supplement increase.

As part of the Budget 2000 Five-Year Tax Reduction Plan, the CCTB was fully indexed for inflation effective January 2000, and further enhancements to both the base benefit and the NCB supplement will continue to be made until 2004. As a result of indexation and other enhancements, CCTB expenditures for the 2004 benefit year are estimated at \$8.7 billion, up from \$5.1 billion in 1996.⁵

Structure of Benefits

Table 1 indicates the structure of the federal child benefit programs for the 1996, 1999, 2002 and 2004 benefit years. To supplement the table, Appendix 3 contains a chronology of changes to federal child benefits from 1997 to 2004.

The Base Benefit

The top panel of Table 1 describes the base benefit in each system. For example, the first column indicates that the 1996 CTB provided a maximum base benefit of \$1,020 per child, with an additional \$75 for the third and each subsequent child, and an additional \$213 for each child under age 7. Families with net income below the threshold of \$25,921 received the maximum benefit. Benefits were phased out at a rate of either 2.5% (for one-child families) or 5% (for families with two or more children) of each dollar of family net income above the threshold.

For instance, a two-child family with one child under age 7 could have received a maximum base benefit of \$2,253. If this family had net income of \$26,921, (\$1,000 above the threshold) it would have had its base benefit reduced by \$50 (5% of \$1,000), resulting in a total base benefit of \$2,203. If the family had net income of \$70,981 (\$45,060 above the threshold) it would have had its base benefit reduced by \$2,253 (5% of \$45,060). That is, this family's base benefit would have been completely phased out.

The base benefit, threshold and reduction rates were the same in the 1999 CCTB as they were in the 1996 CTB. By 2004 the maximum benefit per child 7 years of age and over will increase to \$1,195⁶ for a two-child family. The threshold will increase to \$35,000 and the benefit reduction rate will be reduced to 2% for one-child families and 4% for families with two or more children.

⁵ The CCTB benefit year is not on a calendar-year basis: benefits are adjusted each year in July based on income reported on the preceding year's income tax return. Therefore, the estimate of \$8.7 billion refers to the period from July 2004 to June 2005. The estimate of \$8.4 billion shown in the tax expenditure tables is based on the 2004 calendar year.

⁶ Annual inflation of 2% is assumed for 2002 and subsequent years. This is in the midpoint of the Bank of Canada's target inflation band.

Supplemental Benefits

The bottom panel of the table describes the WIS and the NCB supplement. For example, the first column indicates that the WIS added 8% to employment earnings above \$3,750, up to a maximum of \$500 per family, and that the supplement was reduced with income above \$20,921.

By 2004 the NCB supplement will provide a maximum benefit of \$1,342 for the first child, \$1,128 for the second child and \$1,048 for each additional child. Families will receive the maximum benefit until family net income reaches \$23,256. After that the NCB supplement will decline at a rate of 11.4%, 21%, and 30% for one-, two- and three- (or more) child families respectively. As a result, for families with three or fewer children, the 2004 NCB supplement will be completely phased out once net income exceeds \$35,000.

Table 1
Federal Child Benefit Program Parameters

	1996	1999	2002	2004
Base benefit	CTB		CCTB	
Benefit per child ^a	\$1,020	\$1,020	\$1,151	\$1,195
Supplement for third and each additional child	\$75	\$75	\$80	\$83
Supplement for children under age 7 ^b	\$213	\$213	\$228	\$237
Threshold ^c	\$25,921	\$25,921	\$32,960	\$35,000
Benefit reduction rate ^d				
One child	2.5%	2.5%	2.5%	2.0%
Two or more children	5.0%	5.0%	5.0%	4.0%
Supplement	WIS	NCB supplement		
First child	8% of employment	\$785	\$1,293	\$1,342
Second child	income above \$3,750, up	\$585	\$1,087	\$1,128
Each additional child	to a maximum of \$500	\$510	\$1,009	\$1,048
Threshold	\$20,921	\$20,921	\$22,397	\$23,256
Supplement reduction rate				
One child	10.0%	11.5%	12.2%	11.4%
Two children	10.0%	20.0%	22.5%	21.0%
Three or more children	10.0%	27.5%	32.1%	30.0%

Note: Amounts shown are in current dollars. Annual inflation of 2% is assumed for 2002 and subsequent years.

a The CCTB base benefit is slightly different in Alberta, where the amount per child varies by age. Total benefits paid are the same.

b This is reduced by 25% of child care expenses claimed for these children.

c Families with family net income under the threshold receive the full benefit. Each dollar of family net income above the threshold reduces the amount of benefits received.

d This is the rate at which income above the threshold reduces benefits. For example, in 2002 a family with two children and an income of \$33,060 would have its benefits reduced by \$5 (5% of \$100).

The combination of the base benefit and the supplement will be much higher in 2004 than it was in 1996. For example, the maximum benefit for a two-child family with one child under age 7 is \$5,097 with the 2004 configuration of the CCTB. This is nearly double the maximum 1996 CTB benefit of \$2,753.

Diagrams 1 and 2 illustrate the 1996 CTB and the 2004 configuration of the CCTB. These diagrams make clear the progressive nature of federal child benefits in Canada: low-income individuals receive an extra benefit (the WIS or NCB supplement), which is phased out quickly after net income exceeds approximately \$20,000. The base benefit is also progressive, although the phase-out rate is much more gradual.

The diagrams also provide a visual comparison of the level of federal child benefits under the 1996 CTB and 2004 CCTB. The average benefits paid to recipient families increase significantly in 2004; in addition, many more families are eligible for benefits.

Diagram 1: CTB (1996) Benefits as a Function of Family Net Income

(Two-child family with one child under age 7)

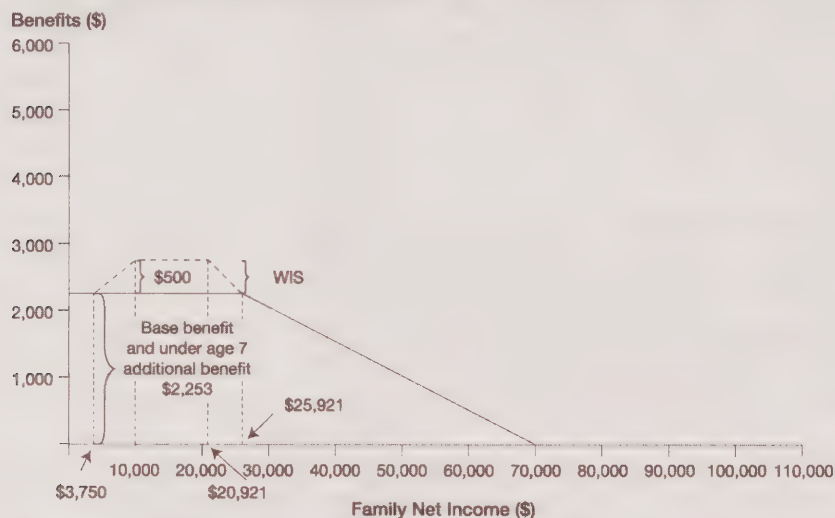
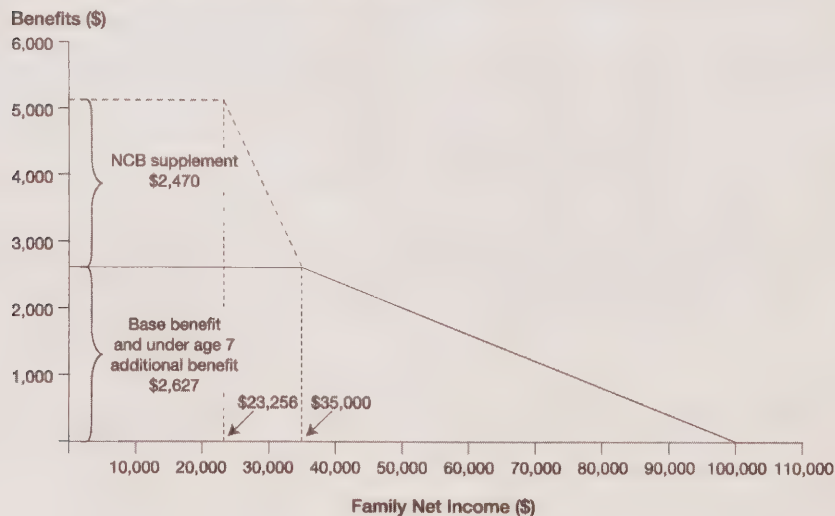


Diagram 2: CCTB (2004) Benefits as a Function of Family Net Income

(Two-child family with one child under age 7)



Amount and Distribution of the CCTB

This section compares the 1996 CTB with the 1999 and 2004 configurations of the CCTB according to the average benefits paid to various income classes, and the resulting change in the income distribution of families with children.

The comparison points were chosen for the following reasons:

- The starting point is the last year before federal child benefits began to be enriched in the late 1990s. In 1996 the WIS was still in place; there was no NCB supplement.
- The midpoint, 1999, is the final year before full indexation of the CCTB and other enhancements came into effect.
- The end point represents the mature CCTB – all changes to benefits, income thresholds and reduction rates legislated after 1999 will be in effect by 2004.

The numbers in the charts and tables in this section were produced by Statistics Canada, using the Social Policy Simulation Database and Model (SPSD/M), a micro computer-based product designed to assist in the analysis of the financial interactions of governments and individuals in Canada.⁷ It can assess the cost implications and income distribution effects of changes in the personal taxation and cash transfer system. The SPSPD is a non-confidential, statistically representative database of hypothetical individuals in their family context, with enough information on each individual to compute taxes paid to and cash transfers received from the Government. The SPSM is a static accounting model (i.e. it does not consider behavioural feedback effects) that processes each individual and family on the SPSPD, calculating taxes and transfers using legislated or proposed programs.

Throughout this section, families are classified by income group. The income measure includes all forms of revenue received by a family except for CCTB (or CTB) benefits.⁸

The definition of “family” is a nuclear family: a married couple, a common-law couple or a lone-parent living together with their children under the age of 18. A married child and his or her spouse living in the household constitute a separate nuclear family, as does a child with his or her own children living in the household.

⁷ The simulations were performed by Statistics Canada, but the assumptions and calculations underlying the simulation results were specified by the Department of Finance. Therefore, the responsibility for the use and interpretation of these data is entirely that of the Department of Finance.

⁸ Note that CCTB payment amounts, as displayed in the previous section, are calculated based on family net income for tax purposes. Net income is obtained by deducting certain work-related expenses from total income.

How Are the Child Benefit Programs Being Compared?

In order to isolate the effects of the three benefit programs (1996 CTB, 1999 CCTB and 2004 CCTB), the sample population is kept constant, based on 1999 demographic data. That is, the analysis applies the parameters of each of the benefit programs to the 1999 population, enabling a comparison of the three programs while holding everything else constant. All program parameters and other amounts are converted to 1999 dollars.

Since 1999 demographic data is used, the results for the 1996 CTB and 2004 CCTB are hypothetical. They represent what these program configurations would have meant for the 1999 population had the 1996 CTB (or 2004 CCTB) been in place. In the interest of readability, the discussion below is kept almost entirely in the present tense, despite the conditional nature of the analysis.

Amount and Share of Benefits to Various Income Classes

Chart 1 displays the average amount of federal transfers in support of children provided to families in various income groups. It clearly illustrates the increase in federal support to low- and middle-income families resulting from the replacement of the CTB with the CCTB, and its subsequent enrichment.

Chart 1

Average Federal Child Benefits to Families With Children

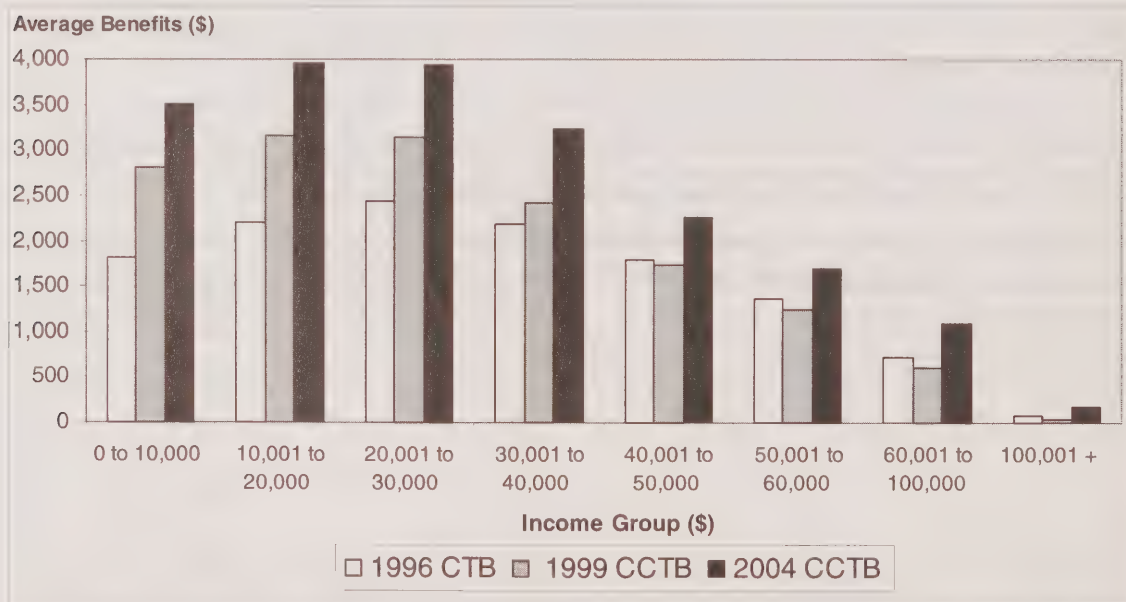


Chart 1 also demonstrates the impact of the benefit reduction rate for families above the threshold. After family net income exceeds the threshold (\$35,000 in 2004), CCTB benefits gradually decline. The reduction rate is low enough, however, to ensure that middle-income families receive a measurable benefit. This is consistent with the role of government in promoting taxation fairness and equity among individuals with different family circumstances.

The chart indicates that families with between \$10,000 and \$30,000 of annual income receive more federal aid than families with less than \$10,000 of annual income. However, this is not due to the parameters of the CCTB. It occurs simply because families with incomes between \$10,000 and \$30,000 have slightly more children, on average, than families with incomes of under \$10,000 in the 1999 population that is used.

Since the NCB supplement is targeted at low-income families, the proportion of aggregate CCTB benefits received by this group is much higher than its share of the population. Table 2 compares the share of families in four different income classes with the amount and share of aggregate benefits paid to those families under each of the program configurations.

Table 2
Share of Families With Children and Share of CTB or CCTB Benefits by Income Class

Total income	Share of families	Share of 1996 CTB	Share of 1999 CCTB	Share of 2004 CCTB			
	(%)	(\$ billions) ^a	(%)	(\$ billions) ^a	(%)	(\$ billions) ^a	(%) ^b
Up to \$20,000	15.3	1.2	23.1	1.8	29.8	2.2	27.5
\$20,001 to \$40,000	21.7	1.9	36.1	2.3	38.0	2.9	36.3
\$40,001 to \$60,000	21.9	1.3	25.0	1.2	20.7	1.6	20.2
Above \$60,000	41.1	0.8	15.8	0.7	11.5	1.3	15.9

Note: Shares are based on a 1999 population distribution.

^a Amounts are in 1999 dollars, so benefit increases due to inflation are not shown.

^b Numbers may not add to 100% due to rounding.

The table is read as follows: the first row indicates that 15.3% of Canadian families have income (net of child benefits) up to \$20,000 in 1999. Those families receive a total of \$1.2 billion in 1996 CTB transfers, or 23.1% of the 1996 total. They receive \$1.8 billion in 1999 CCTB transfers, or 29.8% of that year's total. Finally, they receive \$2.2 billion in 2004 CCTB transfers, or 27.5% of the total. The first two rows of Table 2 indicate that families with income up to \$40,000, who make up less than 40% of Canadian families with children, receive about 60% of aggregate benefits under the 1996 CTB and about two-thirds of benefits under the 1999 and 2004 CCTB.

Table 2 illustrates how federal child benefits paid to various income classes evolve over the 1996 to 2004 period. Between 1996 and 1999 the introduction of the NCB supplement increases both the amount and share of total federal child benefits going to families with up to \$40,000 income. Between 1999 and 2004 benefits continue to increase; this time the enrichments extend further up the income range, bringing more families into the program. This necessarily reduces the share of total benefits paid to

families with income up to \$60,000. As Table 2 indicates, however, all families are better off as a result of these enrichments.

Impact of Child Benefits on the Income Distribution of Families With Children

This section demonstrates the direct effect of the child benefit programs in 1996, 1999 and 2004 on the distribution of income among families with children. Since the provincial/territorial component of the NCB also affects income distribution, it is more informative to consider the joint effect of the CCTB and the NCB than to consider the CCTB benefits in isolation. Recall that the NCB supplement replaces part of the social assistance payments made by the provinces and territories. The social assistance recoveries are then reinvested in programs that benefit low-income families with children while promoting attachment to the labour market.⁹

Results reflecting both the CCTB and the provincial/territorial component of the NCB are labelled “CCTB/NCB.” The analysis considers only the direct effect of the cash transfers. The impact of the NCB on family incomes due to increased participation in the labour market is not taken into account.

Chart 2 shows the distribution of family income excluding all federal child benefits and the provincial/territorial component of the NCB (the “No Child Benefits” case), and under each of the three child benefit program configurations. It indicates that the direct effect of the CCTB/NCB is to raise families out of the lowest income classes and into the \$30,000 to \$60,000 income range.

While it shows the final net impact of child benefits on income distribution, Chart 2 masks a lot of the underlying movement up the income scale. To illustrate the extent of this movement, Chart 3 shows the shares of families that move into a higher income group as a result of each of the three benefit programs. For example, the first three columns of Chart 3 indicate that 30.5% of the families who have under \$10,000 in income in the “No Child Benefits” case move into the \$10,000 to \$20,000 income group as a result of the 1996 CTB; with the 1999 CCTB/NCB, 38.5% of the families with under \$10,000 in income excluding child benefits move into the \$10,000 to \$20,000 income group; and the 2004 CCTB/NCB raises the share of families moving out of the under \$10,000 income group to 42%.

⁹ Approximately two-thirds of the social assistance recoveries are reinvested in direct cash transfers (such as employment income supplements). These cash transfers are considered in the income distribution analysis, but in-kind benefits, such as supplementary health benefits and child/day care initiatives, are not. As a result, the improvements in income distribution resulting from the CCTB and NCB somewhat understate the improvement in the financial situation and well-being of low-income families.

Chart 2

Income Distribution of Families With Children

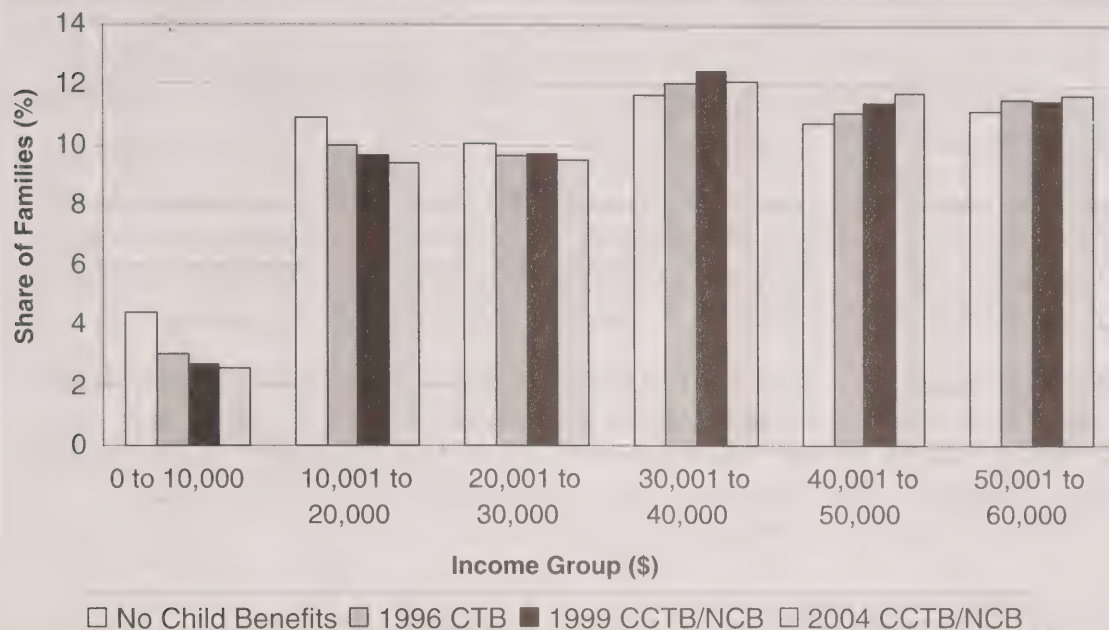
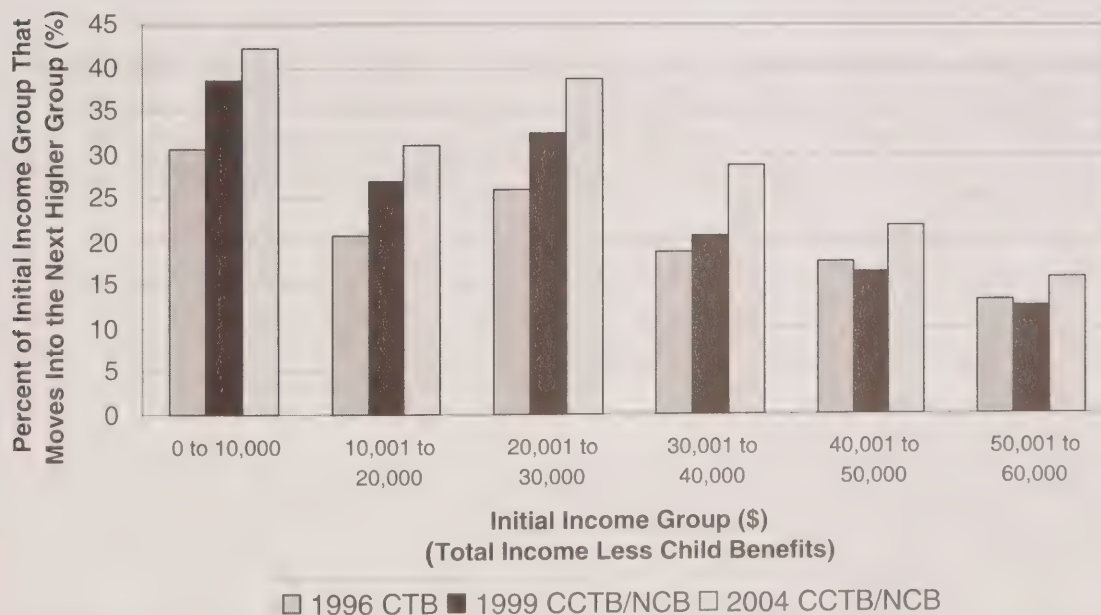


Chart 3

Movement of Families With Children up the Income Scale



Impact of Child Benefits on the Incidence and Depth of Low Income

While the goal of the CCTB is to provide income assistance to low- and middle-income families, it is designed so that a greater share of benefits goes to lower-income families. In particular, the NCB explicitly targets low-income families with a view to preventing and reducing poverty.

There is no universally accepted definition of “poverty,” so a quantitative analysis of this NCB objective is not possible. However, we can study the impact on families at the lower end of the income scale. This is most readily done using Statistics Canada’s After-Tax Low Income Cut-Off (AT-LICO).

Statistics Canada defines the AT-LICO as “the income threshold below which a family will likely devote a larger share of its after-tax income to the necessities of food, shelter and clothing than the average family would.”¹⁰ The AT-LICO varies by family type and location, ranging in 1999 from \$11,817 for a two-person family in a rural area, to \$38,416 for a seven- (or more) person family in a large city.¹¹

The incidence of low income is measured as the percentage of families living below the AT-LICO. The first row of Table 3 shows that 16.8% of families in 1999 would be below the AT-LICO if there were no child benefits. This can be compared with the shares of families below the AT-LICO under the 1996 CTB, the 1999 CCTB/NCB and the 2004 CCTB/NCB as a partial measure of the success of these programs. For example, the 2004 CCTB/NCB reduces the number of families living below the AT-LICO by 4.4 percentage points, to 12.4%.

Table 3 also presents the average income increase of families who remain below the AT-LICO after receiving child benefits. For example, there is a \$3,445 increase in the average income of the 12.4% of families remaining in low income under the 2004 CCTB/NCB. That is, the CCTB reduces both the incidence and the depth of low income.

¹⁰ Families who are expected to spend 20 percentage points more of their income on these necessities than the average family are defined as low-income. See “Low Income Cutoffs from 1990 to 1999 and Low Income Measures from 1989 to 1998,” Statistics Canada, Income Statistics Division, 75F0002MIE – 00017, January 2001.

¹¹ AT-LICOs use “economic families,” while this paper has used “nuclear families” (defined on page 47) up to this point. Economic families are defined as a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law or adoption. By definition, all persons who are members of a nuclear family are also members of an economic family. However, economic families can also include children over the age of 18, elderly parents and other relations living in the same dwelling.

Table 3

Incidence of Low Income and Change in the Depth of Low Income

		All families with children
No child benefits	Percent of families below AT-LICO	16.8%
1996 CTB	Percent of families below AT-LICO	13.9%
	Average income increase of families remaining in low income ^a	\$2,382
1999 CCTB/NCB	Percent of families below AT-LICO	13.1%
	Average income increase of families remaining in low income ^a	\$2,991
2004 CCTB/NCB	Percent of families below AT-LICO	12.4%
	Average income increase of families remaining in low income ^a	\$3,445

Note: Based on 1999 population distribution.

^a As compared with the base case of no child benefits.

Conclusion

Through the CCTB, the federal government assists low- and middle-income families with the expenses of raising children. It has two components: a base benefit and the NCB supplement. The base benefit is available to most families – although the amount is reduced as family income increases. The NCB supplement, a component of the intergovernmental National Child Benefit initiative, provides extra assistance to low-income families.

Since its inception in 1998, several enhancements have been made to the CCTB. Consequently, by 2004 the benefit available to the typical low-income family will be nearly double the amount paid under the previous Child Tax Benefit system. Middle-income families are also better off with the CCTB.

The CCTB has had a positive – and growing – impact on income distribution. Families with total income under \$40,000, who represent less than 40% of the population of families with children, receive about two-thirds of aggregate CCTB benefits. These benefits raise many families above the low-income cut-off, and reduce the depth of low income for those families still below the cut-off.

Appendix 1 – Program Acronyms Used in This Paper

CTB: The Child Tax Benefit; in place from 1993 to 1997. Provided financial support to low- and middle-income families with children. Consisted of the CTB base benefit and the Working Income Supplement (WIS).

WIS: The Working Income Supplement. As part of the CTB, the WIS provided a benefit to low-income families with children and earned income.

CCTB: Canada Child Tax Benefit. The system of federal transfers in support of families with children after 1997. Consists of the CCTB base benefit and the NCB supplement.

CCTB base benefit: Part of the CCTB. Provides support to low- and middle-income families with children. Identical in structure to its predecessor, the CTB base benefit.

NCB supplement: The National Child Benefit supplement. This is part of the CCTB; it is the extra federal assistance provided to low-income families on top of the base benefit. It is also the federal component of the intergovernmental National Child Benefit.

NCB: National Child Benefit. A joint initiative of the federal, provincial and territorial governments (except Quebec – see footnote 3 on page 43). The NCB also includes a First Nations component. The NCB consists of the NCB supplement and provincial funding of various programs. The provincial NCB initiatives provide assistance to low-income families while promoting attachment to the workforce. Part of the provincial funding is from reinvestments of reduced social assistance made possible by higher federal NCB supplement payments.

CCTB/NCB: The combination of the CCTB base benefit, the NCB supplement and the provincial/territorial income transfer components of the NCB.

Appendix 2 – NCB Evaluation

When the NCB was introduced, the federal, provincial and territorial governments agreed to undertake ongoing evaluations of the program, verifying that it meets its goals of alleviating child poverty and promoting attachment to the workforce. In keeping with this commitment, there is an annual progress report, which can be found on the Internet at www.nationalchildbenefit.ca. In addition, Human Resources Development Canada is currently coordinating a comprehensive evaluation of the NCB. This evaluation has three components.

The first component of the evaluation, “A Net Impact Assessment of the National Child Benefit on Social Assistance Dependency”, is a set of descriptive and quantitative studies attempting to measure the effect of the NCB on child poverty and parental work effort. It also attempts to determine if the NCB is the most cost-effective way to meet its stated goals. To supplement existing data sources, a number of surveys are underway to gather information about the NCB. The survey groups include:

- NCB clients.
- Federal and provincial program managers involved in the delivery of the NCB.
- Social policy experts such as academics.

Using the survey results and other data sources, the study will:

- Measure the effect of the NCB on the incidence, depth and duration of child poverty.
- Measure the impact of the NCB on labour market participation.
- Calculate the change in net income of low-income families who leave social assistance to work full time.
- Analyze the design and delivery effectiveness of the NCB.

The second component, “Provincial/Territorial Reinvestment Case Studies Module – National Child Benefit Evaluation,” is primarily qualitative and consists of a set of studies that look at the programs receiving provincial NCB investments and NCB supplement reinvestments.

This module has two sub-components: a “Program Cluster” sub-component, and a “What Works” sub-component.

There are five major “program clusters” funded with NCB reinvestments:

- Child Benefit/Earned Income Supplements.
- Child Care/Day Care.
- Supplementary Health Benefits.
- Early Childhood Services/Children-At-Risk Services.
- “Other”.

Evaluation planning for each sub-component covers a four-year time frame. Each of the five program clusters are to be evaluated once over the course of four years. “What Works” case studies are also planned in each of the four years.

Each year the Program Cluster sub-component focuses on the reinvestments in a selected cluster or clusters examining rationale/relevance, design/approach, implementation/delivery, and intended/unintended impacts.

In addition, a few programs from within the cluster being examined are selected for the “What Works” sub-component. These programs are examined in additional detail to determine key challenges, issues or obstacles they have faced, the approaches or interventions that have contributed to their success, and the approaches or interventions that “did not work,” but which provide useful information.

The third and final component of the NCB evaluation is an examination of the net impact of the NCB on families on social assistance in British Columbia, Saskatchewan and Manitoba. These provinces have created longitudinal administrative data sets, describing how their NCB initiatives address the barriers to employment facing families on social assistance. The evaluation uses this data to estimate the impact of the programs on the level of dependency on social assistance.

This paper is complementary to the NCB evaluation and to the annual NCB progress reports in that it examines the CCTB – the federal contribution to child benefits in Canada. As described in the section entitled “Evolution of the CCTB,” the CCTB consists of the NCB supplement as well as a base benefit, which is not part of the NCB.

Appendix 3 – Changes to Federal Child Benefits Since 1997

1997

- Increased the maximum Working Increase Supplement (WIS) from \$500 per family to \$605 for the first child, \$405 for the second child and \$330 for each additional child.

1998

- The Child Tax Benefit (CTB) was renamed the Canadian Child Tax Benefit (CCTB). The WIS (part of the CTB) became part of the intergovernmental National Child Benefit (NCB) initiative, and was renamed the National Child Benefit supplement (NCB supplement).

1999

- Increased the maximum NCB supplement by \$180 per child.

2000

- Increased the maximum base benefit by about \$85 per child.
- Increased the base benefit threshold by \$4,083.
- Increased the maximum NCB supplement by about \$190 per child.
- Increased the NCB supplement threshold by \$293.

2001

- Increased the maximum base benefit by about \$13 per child.
- Increased the base benefit threshold by \$1,996.
- Increased the maximum NCB supplement by about \$280 per child.
- Increased the NCB supplement threshold by \$530.

2002

- Increased the maximum base benefit by about \$35 per child.
- Increased the base benefit threshold by \$960.
- Increased the maximum NCB supplement by about \$35 per child.
- Increased the NCB supplement threshold by \$653.

2003

- Indexation for inflation.

2004

- Indexation for inflation.
- The base benefit threshold must be at least \$35,000, an increase of \$2,040 over the 2002 level.
- The base benefit reduction rate will be reduced to 2% (from 2.5%) for a one-child family and 4% (from 5%) for a family with two or more children.

**SPECIAL FEDERAL TAX ASSISTANCE FOR
CHARITABLE DONATIONS OF PUBLICLY TRADED SECURITIES**

EXECUTIVE SUMMARY

Background

This report summarizes the results of the measure that provides special income tax assistance for donations of publicly traded securities to public charities. Under this measure, which was introduced on a temporary basis in 1997, individuals and corporations donating publicly traded securities to public charities include in income for tax purposes only one-half the amount of capital gains realized on the donation that they would include for other capital gains. This measure was to be continued only if it was found effective in both increasing donations and distributing the additional donations fairly among charities. The measure was made permanent in 2001. This report is based on donations of publicly traded securities claimed on income tax returns during the first four years of the measure, that is, 1997 to 2000.

Impact of the Measure

Donations of Publicly Traded Securities Have Increased Substantially

Gifts of publicly traded securities grew almost threefold between 1997 and 2000. The growth in donations of securities was much more rapid than the increase in total donations over this period.

Gifts of Securities Have Benefited a Broad Range of Charities

The data indicate that donations of securities from 1997 to 2000 benefited charities that are widely distributed in terms of size, sector and type (that is, charitable organization or public foundation). However, the main beneficiaries were larger charities, charities in the education sector and public foundations.

Cost

Under an assumption that all donations of publicly traded securities arose as a result of the half inclusion rate measure, the annual cost of the measure to the federal government in forgone revenue grew from \$26 million in 1997 to \$73 million in 2000.

Data Limitations

This report is based on data for donations by individuals for the period 1997 to 2000; data on donations by corporations are not included. Unfortunately, data on donations of securities prior to 1997 are not available. For this study it was not possible to isolate the influence of the half inclusion rate measure on donations from that of other relevant factors, including other policy changes to encourage charitable giving. As well, the results presented here were undoubtedly influenced positively by the evolution of financial markets during the 1997-2000 period.

Introduction

On October 12, 2001, the federal government announced its intention to recommend to Parliament that the reduced capital gains inclusion rate for eligible gifts of publicly traded securities to public charities be made permanent.¹ Legislation reflecting that recommendation (contained in Bill C-49, An Act to implement certain provisions of the budget tabled in Parliament on December 10, 2001) was enacted by Parliament in March 2002. This measure was introduced in the 1997 budget for a period of five years, and was to be continued only if it was found effective in both increasing donations and distributing the additional donations fairly among charities. This report reviews the experience with this tax incentive.

The Half Inclusion Rate Measure

In the 1990s the Government introduced a series of tax measures to encourage Canadians to increase donations to charities (Appendix 1). One of the most notable of these was the half inclusion rate measure for donations of publicly traded securities. Under this measure, individuals and corporations donating publicly traded securities to public charities include in income for tax purposes only one-half the amount of capital gains realized on the donation that they would include for other capital gains. The charitable donations credit already provided a significant tax incentive for all donations including cash, and is generous both in relation to other credits in the Canadian tax system and in relation to the treatment of cash donations in the United States. However, a number of observers from the charitable sector noted that there were fewer large transfers of financial capital in Canada. It was observed that donations of publicly traded securities were treated more generously in the United States, and that enhanced tax assistance in Canada for this type of donation would likely have the largest impact on overall donations to charities.

The effect of the half inclusion rate measure on the amount of tax assistance for donations of publicly traded securities is illustrated in Table 1. Donations of publicly traded securities, like donations of cash, are eligible for a non-refundable charitable donations tax credit (or, for corporations, a tax deduction). In the example, it is assumed that the top federal-provincial tax credit rate is 46%, so that on a \$100 donation the value of this credit is \$46. Since the 1997 budget individuals and corporations donating publicly traded securities to public charities include in income for tax purposes, with respect to any capital gains on those securities, only one-half of the amount included for other capital gains. Under the assumptions used in the table, this results in an additional tax saving of \$7 when a \$100 gift is made in the form of securities rather than cash.

¹ Public charities include charitable organizations and public foundations. A charitable organization primarily carries on its own charitable activities. While a public foundation may carry on some of its own charitable activities, it gives more than half of its annual income to other qualified donees, usually other registered charities.

Table 1

**Tax Assistance for Charitable Donations by Individuals of Cash
Compared to Donations of Publicly Traded Securities (Numerical Example)**

	Type of donation	
	Cash	Publicly traded securities donated to public charities
Fair market value of donation	\$100	\$100
Top marginal tax rate ^a	46%	46%
A Value of charitable donations credit	\$46	\$46
Typical cost base of security ^b		\$40
Capital gain on security		\$60
Capital gains tax if sold but not donated ^c		\$14
B Tax saved due to half inclusion rate		\$7
Total tax assistance (A+B)	\$46	\$53
Cost of donation to donor	\$54	\$47

^a Assumes a typical combined federal-provincial tax rate; rates vary by province.

^b Represents the cost at which the security was acquired, including all costs associated with the acquisition. The \$40 amount is illustrative only.

^c As the capital gains inclusion rate is now 50%, with a top marginal tax rate of 46% the effective capital gains tax rate on cashed securities is 23%.

Data Available

This assessment of the half inclusion rate measure is based on data on gifts of publicly traded securities obtained by the Canada Customs and Revenue Agency (CCRA) from income tax returns for 1997 to 2000. Data used in the analysis were those available as of August 2001. These data have the significant advantage of relying on actual donations claimed for tax purposes. However, several limitations must be noted.

Due to the lack of data on corporate donors, this report focuses only on donations by individual taxpayers. As well, donations made during the period but carried forward beyond tax year 2000 have not been included in the analysis;² similarly, donations pledged but not made and claimed are also not included. Comparisons could not be made with the level of securities donated prior to introduction of the measure, as data on gifts of securities were not collected prior to 1997. Finally, data available for tax year 2000 also include donations of ecologically sensitive land, which since 2000 have benefited from the reduced inclusion rate for capital gains.³

² Donations may be carried forward for up to five years if the donor has insufficient taxable income in the year of the donation to fully take advantage of the charitable donations credit in that year.

³ Although the exact value of such donations in the preliminary 2000 data is not available, it is known to be less than 2% of the total for 2000 shown in Table 2. Accordingly, the remainder of the analysis does not distinguish the two components.

Impact of the Measure

Donations of Publicly Traded Securities Have Increased Substantially

Between 1997 and 2000 the value of publicly traded securities donated to eligible registered charities nearly tripled – rising from \$69.1 million to \$200.3 million. Over this period the number of donors of securities rose nearly five times from 500 to almost 2,400.

As shown in Table 2, the growth in gifts of securities was much faster than the growth in total donations. While publicly traded securities make up a small proportion of total gifts to charities, their share of total donations is estimated to have more than doubled (rising from 1.6% to 3.9%) between 1997 and 2000.

Table 2

Gifts of Publicly Traded Securities in Relation to Total Gifts

Tax year	Total gifts		Gifts of publicly traded securities to public charities		Securities as % of total donations
	Amount	Growth	Amount	Growth	
	(\$ millions)	(%)	(\$ millions)	(%)	
1997	\$4,316	–	\$69.1	–	1.6
1998	\$4,753	10.1	\$83.3	20.6	1.8
1999	\$4,946	4.1	\$135.7	62.9	2.7
2000 ^a	\$5,076	2.6	\$200.3	47.6	3.9
Cumulative		18		190	

^a Total receipted donations are estimated by the Department of Finance's T1 tax simulation model using sample T1 income tax data provided by the CCRA. The 2000 figure is a projection.

Gifts of Securities Have Benefited a Broad Range of Charities

Donations of publicly traded securities have benefited a wide variety of charities. Beneficiaries included organizations of various sizes, in different sectors and regions, and with different charitable designations.

Distribution by Size of Charity

Charities of all sizes have benefited from donations of publicly traded securities (Table 3). However, large and medium-sized charities received a larger share of donations of securities than their share of total receipted gifts in 1997 (the only year for which detailed information on receipted gifts is available).

Nevertheless, total donations of securities going to small and micro charities combined increased significantly between 1997 and 2000. This is partly because, over this period, the value of the average gift of securities to small and micro charities increased. The average value of gifts of securities to micro charities rose from \$18,000 in 1997 to \$34,000 in 2000.

Table 3

Gifts of Publicly Traded Securities by Size of Charity

Size of charity ^b	Distribution (%)					All charities, 1997 ^a	
	Gifts of securities to public charities					Total received gifts	Number of charities
	1997	1998	1999	2000	Four-year average		
Large	56.4	51.7	67.6	30.4	48.8	36.0	1.5
Medium	29.2	27.9	14.5	50.5	32.7	28.4	6.6
Small	11.1	15.7	7.2	15.7	12.3	27.8	30.4
Micro	3.3	4.6	10.7	3.4	6.1	7.8	61.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Numbers may not add to 100% due to rounding.

^a From the T3010 tax return, which all charities are required to file with the CCRA (the Registered Charity Information Return).

^b The size of a charity is measured in this report by the dollar value of its total receipts in 1997, the last year for which detailed tax return data are available. Size classification by total receipts is as follows: large charities, \$10 million and over; medium-sized charities, \$1 million to \$10 million; small charities, \$100,000 to \$1 million; and micro charities, less than \$100,000.

Distribution by Sector

Charities in all sectors have received donations of securities. Over 1997 to 2000 charities in the education sector received the largest portion of such gifts (43%), followed by charities in the welfare (25%) and health (13%) sectors. As Table 4 shows, the education sector's share of donations of securities was far above its share of total received gifts.

Table 4

Gifts of Publicly Traded Securities by Charitable Sector

Sector ^a	Distribution (%)					All charities, 1997	
	Gifts of securities to public charities					Total received gifts	Number of charities
	1997	1998	1999	2000	Four-year average		
Benefits to the community	6.8	7.3	4.4	6.8	6.0	5.8	15.9
Education	42.2	42.0	65.0	25.4	42.9	15.8	17.0
Health	8.5	22.0	15.5	9.3	13.2	12.4	7.6
Religion	11.9	12.8	6.8	16.2	12.1	45.4	38.7
Welfare	30.5	15.2	8.4	41.9	25.4	19.7	18.6
Other	0.1	0.7	0.0	0.5	0.3	0.9	2.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Numbers may not add to 100% due to rounding.

^a The "benefits to the community" sector includes charities such as community foundations and art galleries, while the welfare sector includes organizations that provide assistance to economically disadvantaged people.

Distribution by Designation of Recipient Charity

Both charitable organizations and public foundations received gifts of publicly traded securities over the four-year period. However, although public foundations received 15% of total donations in 1997, they received almost 60% of the value of donations of securities (see Table 5).

Public foundations and charitable organizations are similarly distributed in terms of size and sector, so these factors cannot account for the greater donations of securities to public foundations. The data also suggest that the size of donations made only a small contribution to the results: the average value of listed securities donated to public foundations was \$47,400, while that to charitable organizations was \$43,300.

Table 5

Gifts of Publicly Traded Securities by Designation of Charity

Designation	Distribution (%)						
	Gifts of securities to public charities					All charities, 1997	
	1997	1998	1999	2000	Four-year average	Total receipted gifts	Number of charities
Public foundations	56.0	51.0	65.7	54.0	57.8	15.0	5.6
Charitable organizations	44.0	49.0	34.3	46.0	42.2	85.0	94.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Overall Tax Assistance for Donations of Securities Compared to U.S. Treatment

The half inclusion rate measure effectively makes overall tax assistance for donations to public charities of listed securities in Canada roughly similar to what is available in the United States. This point is illustrated in Table 6.

In comparing the U.S. and Canadian systems, it is necessary to take into account a number of differences in the tax structure in the two countries. In the U.S. the federal government applies different inclusion rates to capital gains depending on the length of the holding period and the type of asset. In the U.S. gains on assets held for one year or less are treated as regular income. If the asset is held for more than one year, the capital gains inclusion rate is reduced to zero on donations of publicly listed securities. However, what matters for donors and charities is the total level of tax assistance on donations. Taking into account the charitable donations credit (in the U.S., a deduction) and other relevant factors such as net income limits and clawbacks on tax assistance, the Canadian and U.S. regimes produce roughly similar results.

Table 6

**Tax Treatment of Gifts of Securities to Public Charities
in Canada and the U.S.**

	Canada (2001)	U.S. (2001) ^b	U.S. (2006) ^b
Fair market value of donation	\$100	\$100	\$100
Top marginal tax rate ^a	46%	44%	40%
A Value of donations tax credit/deduction	\$46	\$44	\$40
Typical cost base of security	\$40	\$40	\$40
B Capital gains on security	\$60	\$60	\$60
Maximum statutory capital gains inclusion rate	50%	100%	100%
C Effective capital gains tax rate^c	23%	25%	23%
Capital gains tax if sold but not donated (= B x C)	\$14	\$15 ^e	\$14 ^e
D Additional tax assistance for gifts of securities	\$7^d	\$15^f	\$14^f
Total tax assistance (A+D)	\$53	\$59	\$54
Possible constraints on claiming tax assistance:			
Net income limit (typical)	75%	30%	30%
Clawback of charitable deduction or credit	None	3% of income over \$133,000 U.S., up to 80% of deduction	Clawback begins to phase out

^a Assumes a typical federal-provincial tax rate, with a typical U.S. state tax rate of 5%. U.S. state tax rates on capital gains range from 0 to 12%. Note that the figures for 2001 differ from those published in the 1997 budget due to recent reductions in tax rates in Canada and the U.S.

^b Reflects the Economic Growth and Tax Relief Reconciliation Act of 2001.

^c The effective capital gains tax rate is equal to the top marginal tax rate times the statutory capital gains inclusion rate. The U.S. has a separate capital gains tax rate regime – gains on assets held for one year or less are treated as regular income, while gains on assets held for more than one year are subject to a 20% rate, and in 2006, an 18% rate if held for five years or more. There is no tax assistance on capital gains arising from donations of short-term assets.

^d Only 50% of the usual capital gains are included in income for capital gains arising from donations of publicly listed securities.

^e In the U.S. tax assistance for donations of short-term assets would be 44% in 2001 and 40% in 2006.

^f Capital gains on business assets held for one year or less and non-business assets held for less than three years are taxed like ordinary income.

As noted in Table 6, the typical value of the charitable donations credit or deduction is similar in Canada and the U.S. (46% vs. 44%). When current capital gains rates are taken into account, the level of tax assistance differs by about 6 points (53% in Canada, 59% in the U.S.). However, claims in respect of relatively large donations may be constrained by annual income limits, which may require donors to carry forward a portion of their tax assistance to a future year. In Canada this limit is usually 75%, whereas in the U.S. it is typically only 30% of income. In addition, the charitable deduction in the U.S. is reduced by 3% of “adjusted gross income” (income from most sources minus certain deductions), up to a limit of 80% of the value of the deduction, when the donor has adjusted gross income over \$133,000 U.S. Canada has no such reduction in tax assistance. The overall effect of these constraints is to reduce the effective rate of tax assistance for larger donations in the U.S. All things considered, therefore, tax assistance for donations of listed securities to public charities is roughly similar in Canada and the U.S.

Cost

The tax expenditure cost to the federal government of the half inclusion rate measure has two components: the revenue forgone as a result of the reduced inclusion rate and the increased cost of the charitable donations credit from any increase in donations that result from the measure. As indicated in Table 7, if all donations of listed securities came about as a result of the 1997 budget measure, and if in the absence of the measure the securities would have been sold instead of donated, then the cost of the measure rose from \$26 million in 1997 to \$73 million in 2000. If, on the other hand, these donations – whether in cash or shares – would have been made in the absence of the measure, the total cost rose from \$6 million to \$15 million over the same period. Actual costs would be between these two ends of the spectrum.

These figures do not include the cost to provincial governments, which have similar credits for charitable donations. On average, for every dollar of federal assistance, there would be almost \$0.50 of provincial assistance. In 2000, for example, the combined federal-provincial cost, at the high end of the spectrum, would be about \$105 million.

Table 7
Tax Expenditure Cost of the Half Inclusion Rate Measure

Component of cost	1997	1998	1999	2000	Total
	(\$ millions)				
Reduction in tax on capital gains	6	6	13	15	40
Increased use of the charitable donations credit ^a	20	24	39	58	141
Total cost	26	30	52	73	181

^a Assumes all donations of listed securities came about as a result of the 1997 budget measure.

It should be noted that, consistent with the standard methodology and presentation, only the cost directly attributable to the reduced inclusion of capital gains by the donor is shown separately in the annual tax expenditure tables (Part 1 of this publication). The total cost of the measure is the sum of that amount and the amount that represents the increased use of the charitable donations credit that resulted from new donations.

Assessment and Conclusion

This report reviews the experience with the capital gains half inclusion rate measure that was introduced in the 1997 budget. At that time the Government stated its intention to continue the measure in five years only if it was effective in increasing donations and distributing the additional donations fairly among charities.

Available data indicate that there has indeed been significant growth in the value of gifts of publicly traded securities. From 1997 to 2000 donations of securities almost tripled, a significantly faster rate of growth than that of other types of donations. These gifts benefited charities that are widely distributed in terms of size, sector and charitable

designation – a finding that is consistent with the results of a study commissioned by the voluntary sector.⁴ Larger charities, charities in the education sector and public foundations benefited proportionately more.

With available data and the relatively short time period the measure has been in place, it was not possible to isolate the influence of the half inclusion rate measure from that of other factors that may have affected donations of securities over 1997 to 2000. Strong economic conditions and positive financial market performances over this period may have stimulated more donations, and larger donations, than could be expected over an entire economic and market cycle. Nevertheless, donations may increase somewhat as the measure becomes better known to potential donors, and smaller charities market it more actively.

An additional factor complicating an assessment of the success of the measure was the impact of other recent tax changes affecting charities, including changes to net income limits and the rules regarding donations of ecologically sensitive land. Furthermore, given the short time period and the absence of data on donations of securities prior to 1997, it is difficult to assess the extent to which individuals who would otherwise have made cash donations may have switched to donations of listed securities.

The introduction of the half inclusion rate measure was prompted, in part, by comparison of the Canadian approach with the U.S. tax system. Since 1997 the reduction of the income inclusion rate for capital gains in Canada has resulted in overall tax assistance that is roughly similar to that in the U.S. for donations to public charities of publicly listed securities held for more than one year.

The Government has stated its intention to continue to work with the charitable sector to determine whether there is an appropriate and cost-effective basis for broadening this measure beyond its current application.

⁴ Deloitte & Touche, Survey of Gifts of Publicly Listed Securities (August 2000).

Appendix 1 – Tax Assistance for Charities and Public Institutions

1994

- Lowered the threshold at which charitable donations begin to earn the 29% tax credit from \$250 to \$200.

1995

- Removed the income limit for tax credits on donations of ecologically sensitive land.

1996

- Increased the limits on charitable donations eligible for tax credits from 20% to 50% of net income, and to 100% of net income in the year of death and the preceding year.
- Expanded zero-rating of hospital beds to all health care facilities, including long-term care facilities.
- Allowed most charitable and public organizations to raise funds without collecting and remitting goods and services tax (GST) on sales.
- Provided a 100% GST rebate on books purchased by public libraries, educational institutions and other specified bodies.

1997

- Provided a half inclusion rate on capital gains arising from donations made before 2002 of certain publicly traded securities.
- Changed the income limit for donations to 75%.
- Allowed 25% of capital cost allowance recapture of donated property to be included in the net income limit.
- Sanctioned a new method of valuation for easements of ecologically sensitive land.
- Increased resources for Revenue Canada to enhance information and compliance from charities.
- Simplified GST accounting, reporting and remittance requirements for charities.

1998

- Increased tax-free allowances for emergency service volunteers.
- Allowed designated charities to treat certain services they supply to business customers as GST/harmonized sales tax (HST) taxable, thereby allowing charities to compete on an equal footing with other suppliers.
- Provided equivalent GST/HST treatment to charities operating authorized bottle return depots vis-à-vis commercial operators.

2000

- Reduced tax on employment benefits in respect of donations of shares acquired through stock option plans to parallel treatment of donations of certain publicly traded securities.
- Extended the charitable donations credit to donations of registered retirement savings plan, registered retirement income fund and insurance proceeds that are made as a consequence of direct beneficiary designations.
- Reduced capital gains income inclusion by one-half in respect of gifts of ecologically sensitive land and related easements, covenants and servitudes.

2001

- Made permanent the measure providing a half inclusion rate on capital gains arising from donations of certain publicly traded securities to public charities.

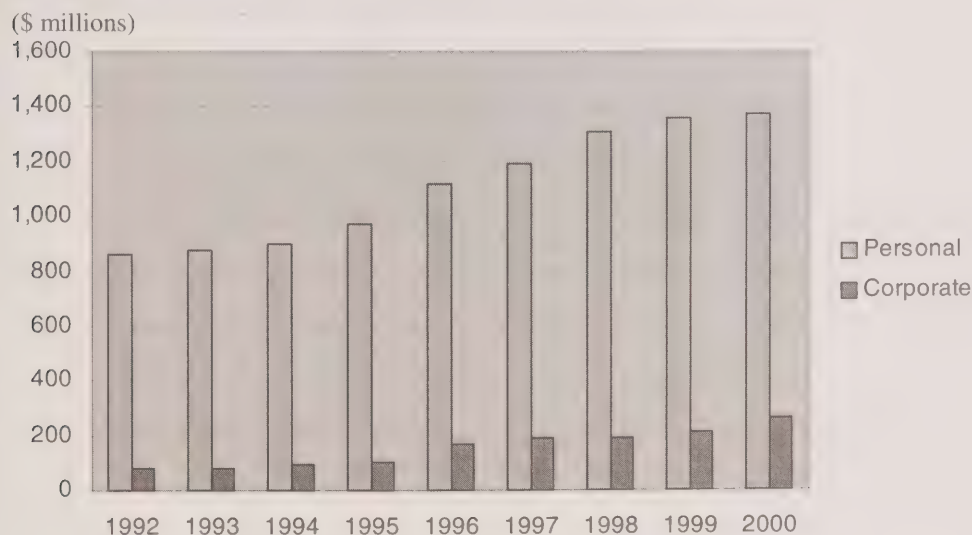
Appendix 2 – Tax Assistance to Registered Charities

The federal government provides tax assistance to registered charities through three vehicles: the charitable donations credit/deduction, their tax-exempt status and partial rebates of the GST. The immediate benefits that charities derive from these three forms of tax assistance are an increased ability to attract donations, no requirement to pay tax on the proceeds from related business activities, and lower operating costs.

From 1994 to 2001 the federal government introduced a number of measures that increased direct and indirect tax assistance to registered charities. For example, in 1994 it lowered the threshold at which charitable donations begin to earn the 29% tax credit from \$250 to \$200. In 1996 it increased the net income limit for donations from 20% to 50%, and then to 75% in 1997.⁵ In 2001 it made permanent the measure studied in this paper, which provides additional tax assistance to eligible gifts of publicly traded securities (for an exhaustive list of measures, see Appendix 1).

The chart below shows the evolving cost of federal tax assistance to registered charities, as measured by federal tax expenditures. Tax expenditures represent the value of tax revenues forgone, due to preferential treatment given to certain taxpayers, to achieve a variety of economic and social objectives.

Charitable Tax Expenditures – Personal and Corporate



Note: These data underestimate total tax expenditures related to charities, primarily because they exclude the effect of tax exempt status, for which no data are available.

Source: *Tax Expenditures and Evaluations*.

⁵ Donations to Crown charities were not subject to a net income limit until 1997, at which time the 75% limit was extended to these organizations as well. The changes in the net income limit were introduced to level the playing field between all registered charities.

The most significant of these measures is the charitable donations credit available to individuals. Individuals receive a non-refundable federal tax credit of 16%⁶ on donations up to \$200 and 29% on donations in excess of \$200, up to a maximum tax credit base of 75%⁷ of their net income. As a result, the credit for donations in excess of \$200 amounts to a deduction for taxpayers in the highest tax bracket, and a “super-deduction” for all remaining donors. In addition, donors can carry forward their donations for up to five years, subject to the net income limit. Corporations receive a deduction for all donations to registered charities – including gifts of publicly traded securities – with other tax provisions that parallel those for individual donors.

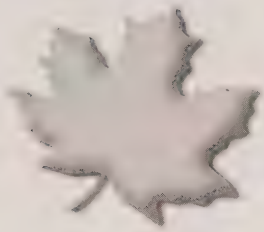
⁶ The October 2000 *Economic Statement and Budget Update* reduced the lowest marginal tax rate on individuals from 17% to 16%. Consistent with this change, the first tier of the charitable donations credit was also reduced from 17% to 16%.

⁷ The income limit is increased by 25% of the recapture of the capital cost allowance arising on a gift of depreciable capital property as well as any taxable capital gains arising on donations of capital property. For individuals, the limit increases to 100% of net income in the year of death and the year preceding death.



TAX EXPENDITURES AND EVALUATIONS

2003



TAX EXPENDITURES AND EVALUATIONS

2003



Department of Finance
Canada

Ministère des Finances
Canada



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PREFACE

Since 2000 the tax expenditure report has been separated into two documents. This document, *Tax Expenditures and Evaluations*, is published on an annual basis. It provides estimates and projections for broadly defined tax expenditures as well as evaluations and descriptive papers addressing specific tax measures.

This year's edition includes two papers. The first paper investigates the impact of projected demographic developments on the future cash-flow tax expenditure cost of registered pension plans and registered retirement savings plans. The second paper analyzes the federal capital tax which, as announced in Budget 2003, will be eliminated over a period of five years.

The companion document, *Tax Expenditures: Notes to the Estimates/Projections*, was published in 2000. It is a reference document for readers who wish to know more about how the estimates and projections are calculated and who want information on the objectives of particular tax expenditures. Tax measures introduced since 2000 are described in the Appendix in Part 1 of this document.

PART 1

**TAX EXPENDITURES:
ESTIMATES AND PROJECTIONS**

INTRODUCTION

The principal function of the tax system is to raise the revenues necessary to fund government expenditures in a manner that is both efficient and equitable. The tax system is also an instrument of policy that serves to advance a wide range of economic, social and other public policy objectives. Tax measures that reflect such objectives include exemptions, deductions, rebates, deferrals and credits, and are typically referred to as “tax expenditures.”

In order to define tax expenditures, it is necessary to establish a “benchmark” tax structure that applies the relevant tax rates to a broadly defined tax base—e.g., personal income, business income or consumption. Tax expenditures are then defined as deviations from this benchmark. It is important to recognize that reasonable differences of view exist as to the structure of the benchmark tax system and hence as to what constitutes a tax expenditure. For example, a deduction for expenses incurred in earning income is generally considered as part of the benchmark and thus not as a tax expenditure. But in some cases the deduction may confer some personal benefit, making its classification ambiguous.

This report takes a broad approach and lists as tax expenditures all tax measures that deviate from a basic benchmark tax system. It also includes measures that would not generally be considered to be tax expenditures and would therefore be included in the benchmark tax system. These are shown as “memorandum items.” For instance, the dividend tax credit is listed under this heading because its purpose is to reduce or eliminate the double taxation of income earned by corporations and distributed to individuals through dividends. This approach—listing both broadly defined tax expenditures and memorandum items—provides maximum information to the reader.

Caveats

Care must be taken in interpreting the estimates and projections of tax expenditures in the tables for the following reasons.

- The estimates and projections are intended to indicate the potential revenue gain that would be realized by removing individual tax measures. They are developed assuming that the underlying tax base would not be affected by removal of the measure. However, this is an assumption that is unlikely to be true in practice as the behaviour of economic agents, overall economic activity and other government policies could change along with the specific tax provision.
- The cost of each tax measure is determined separately, assuming that all other tax provisions remain unchanged. Many of the tax expenditures do, however, interact with each other such that the impact of several tax provisions at once cannot generally be calculated by adding up the estimates and projections for each provision.

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- The federal and provincial income tax systems interact with each other to various degrees. As a result, changes to tax expenditures in the federal system may have consequences for provincial tax revenues. In this publication, however, any such provincial effects are not taken into account—that is, the tax expenditure estimates and projections address strictly the federal tax system and federal tax revenue.
 - In the case of the harmonized sales tax in effect in Nova Scotia, New Brunswick, and Newfoundland and Labrador, only the federal cost of the tax expenditures is reported.
 - The tax expenditure estimates and projections presented in this document are developed using the latest available taxation data. Revisions to the underlying data as well as improvements to the methodology can result in substantial changes to the value of a given tax expenditure in successive publications. In addition, some tax measures, such as the half inclusion rate on capital gains, are particularly sensitive to economic parameters.

WHAT'S NEW IN THE 2003 REPORT

A number of new tax measures have been introduced since last year's report and others have been modified. These are described below.

Personal Income Tax

Increases to the National Child Benefit Supplement

- The 2003 budget increased the National Child Benefit (NCB) supplement component of the Canada Child Tax Benefit (CCTB) for low-income families by an annual amount of \$150 per child in July 2003, \$185 in July 2005 and \$185 in July 2006. With these increases, plus full indexation, the maximum CCTB benefit is projected to reach \$3,243 for the first child, \$3,016 for the second child and \$3,020 for each additional child, in 2007.

Increases to RPP and RRSP Limits

- The 2003 budget increased the registered pension plan (RPP) and registered retirement savings plan (RRSP) limits. The "money purchase" RPP limit was increased to \$15,500 for 2003, \$16,500 for 2004 and \$18,000 for 2005. Corresponding increases were made to the maximum pension limit of \$1,722 per year of service for defined benefit RPPs, bringing it to \$1,833 for 2004 and \$2,000 for 2005. The RRSP limit was increased to \$14,500 for 2003, \$15,500 for 2004, \$16,500 for 2005 and \$18,000 for 2006. The RPP limits will be indexed to average wage growth starting in 2006, and the RRSP limit will be indexed starting in 2007.

Introduction of the Child Disability Benefit

- The 2003 budget introduced a \$1,600 Child Disability Benefit (CDB), effective July 2003. The CDB will be paid for children who meet the eligibility criteria for the disability tax credit.
- The full \$1,600 CDB will be provided for each eligible child to families having a net income below the amount at which the NCB supplement is fully phased out (i.e., \$33,487 in July 2003 for families having three or fewer children). Beyond that income level, the CDB will be reduced based on family income at the same rates as the NCB supplement.

Extension of the Federal Tax Credit for Flow-Through Share Investors¹

- The 2003 budget extended the expiry date for the temporary tax credit for mineral exploration, introduced in the October 2000 *Economic Statement and Budget Update*, from December 31, 2003 to December 31, 2004.

¹ In the 2003 budget this was referred to as the mineral exploration tax credit.

-
- The credit will also apply to eligible expenses incurred by a corporation in 2005 that are deemed to have been incurred by a flow-through share investor on December 31, 2004, under the “look-back” rule.

Expansion of List of Eligible Medical Expenses

- Effective with the 2003 taxation year, the list of expenses eligible for the medical expense tax credit includes the cost of real-time captioning and other similar services used by persons with an impairment and the incremental cost of gluten-free food products for individuals with celiac disease who require a gluten-free diet.

Removal of Certain Limits on Capital Gains Rollovers for Small Business Investors

- Effective February 18, 2003, limits on the amount of the original investment and reinvestment in some businesses that may be eligible for a capital gains tax deferral are eliminated.
- A reinvestment will be eligible when made at any time in the year of disposition or within 120 days after the end of the year.

Enhancements to the Political Contribution Tax Credit

- Effective January 1, 2004, the political contribution tax credit will be 75% of the first \$400 contributed, 50% of the next \$350 contributed and $33\frac{1}{3}\%$ of the next \$525 contributed. The maximum credit will be \$650, and will be available when the taxpayer has contributed \$1,275. This change will also apply to donations by corporations.

Corporate Income Tax

Extending Tax Incentives for Renewable and Alternative Energy

- Budget 2003 broadened Capital Cost Allowance Class 43.1, which provides accelerated tax depreciation for certain assets to encourage a more efficient use of fossil fuels and the use of renewable and alternative energy sources, to include certain stationary fuel cell systems, equipment acquired for electricity generation using bio-oil (created from biomass found in forestry and plant residues), as well as certain types of equipment used to heat greenhouse operations. These changes apply to property acquired after February 18, 2003.

Elimination of the Federal Capital Tax

Budget 2003 announced the elimination of the federal capital tax, as follows:

- First, the capital threshold at which the tax applies will be raised from \$10 million to \$50 million effective 2004. As of 2004 medium-sized businesses under the \$50-million threshold will no longer have to pay the tax.
- Second, the rate of the tax will be reduced in stages over a period of five years so that by 2008 the tax will be completely eliminated.
- No changes were proposed to the special tax on large financial institutions.

Federal Capital Tax Rate Reduction Schedule

	2003	2004	2005	2006	2007	2008
Rate (%)	0.225	0.200	0.175	0.125	0.0625	0.00

Extending the Low Tax Rate for Small Businesses

- The 2003 budget increased the amount of active business income eligible for the small business deduction from \$200,000 to \$225,000 for 2003, \$250,000 for 2004, \$275,000 for 2005, and \$300,000 after 2005. The 2000 budget had already provided that active business income between \$200,000 and \$300,000 of qualifying Canadian-controlled private corporations be eligible for a reduced 21% rate effective January 1, 2001.

Improving the Income Taxation of the Resource Sector in Canada

- As indicated in Budget 2003 and as set out in the technical paper *Improving the Income Taxation of the Resource Sector in Canada*, the Government intends to improve the taxation of resource income. Specifically, Bill C-48, tabled in Parliament in June 2003, proposes to phase in the following measures over a period of five years:
 - a reduction of the federal statutory corporate income tax rate on income earned from resource activities from 28% to 21%, beginning with a 1-percentage-point reduction to 27% in 2003, and declining to 21% in 2007;
 - a deduction for actual provincial and other Crown royalties and mining taxes paid and the elimination of the existing 25% resource allowance;
 - a new 10% tax credit for qualifying mineral exploration expenditures.
- In addition, a transitional arrangement for the Alberta Royalty Tax Credit is proposed to assist smaller producers in their transition to the new tax structure.

Increasing the Film or Video Production Services Tax Credit

- The film or video production services tax credit provides a refundable tax credit for qualified Canadian labour expenditures. The 2003 budget increased the existing 11% credit rate to 16% for expenditures incurred after February 18, 2003.

THE TAX EXPENDITURES

Tables 1 to 3 provide tax expenditure estimates and projections for personal income tax, corporate income tax and the goods and services tax (GST) for the years 1998 to 2005.

Estimates and projections are developed using the methodology set out in Chapter 1 of *Tax Expenditures: Notes to the Estimates/Projections*.² The economic variables used to develop the estimates and projections are based on the private sector average forecast presented in the February 2003 budget.

Personal income tax expenditures are grouped according to functional categories. This grouping is provided solely for presentational purposes and is not intended to reflect underlying policy considerations.

All estimates and projections are reported in millions of dollars. The letter “S” (“small”) indicates that the cost is less than \$2.5 million, “n.a.” signifies that data is not available to support a meaningful estimate/projection, and a dash means that the tax expenditure is not in effect. The inclusion in the report of items for which estimates and projections are not available is warranted given that the report is designed to provide information on measures included in the tax system even if it is not always possible to provide their revenue impacts.

Work is continuing to obtain quantitative estimates and projections where possible.

² Available on the Department of Finance Canada Web site at www.fin.gc.ca.

Table 1
Personal Income Tax Expenditures**

	Estimates			Projections				
	1998	1999	2000	2001	2002	2003	2004	2005
	(\$ millions)							
Culture and recreation								
Deduction for clergy residence	55	56	68	64	65	67	67	68
Deduction for certain contributions by individuals who have taken vows of perpetual poverty	S	S	S	S	S	S	S	S
Deduction for Canadian art purchased by unincorporated businesses	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Assistance for artists	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deduction for artists and musicians	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of capital gains on gifts of cultural property ¹	11	16	14	10	10	10	10	10
Education								
Tuition fee credit	260	295	315	270	280	290	300	310
Education credit ²	120	130	135	240	250	265	270	270
Transfer of education and tuition fee credits ²	335	330	290	400	410	420	430	440
Carry-forward of education and tuition fee credits	10	74	120	105	105	110	110	115
Student loan interest credit	46	59	66	64	65	67	69	71
Registered education savings plans	30	26	42	54	68	83	97	98
Partial exemption of scholarship, fellowship and bursary income ³	6	6	29	24	25	25	25	26

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, published in 2000 and available on the Department of Finance Canada Web site (www.fin.gc.ca), for a discussion of the reasons for this.

* The February 2000 budget fully indexed, effective January 1, 2000, those parameters that were previously only partially indexed. The *Economic Statement and Budget Update* of October 2000 reduced all personal income tax rates and eliminated the deficit reduction surtax, effective January 1, 2001. These rate reductions lower the value of exemptions and deductions, as well as those non-refundable tax credits whose values depend on a tax rate, in the year the change was introduced, but this is generally followed by growth in their value over time in line with increases in the size of incomes.

Table 1

Personal Income Tax Expenditures (*cont'd*)

	Estimates			Projections				
	1998	1999	2000	2001	2002	2003	2004	2005
	(\$ millions)							
Adult basic education – tax deduction for tuition assistance	-	-	-	-	10	5	5	5
Apprentice vehicle mechanics' tools deduction	-	-	-	-	10	10	10	10
Employment								
Deduction of home relocation loans	S	S	S	S	S	S	S	S
Tax-free amount for emergency service volunteers	14	14	14	14	14	14	14	14
Northern residents deductions	135	135	135	120	125	125	125	125
Overseas employment credit	62	53	38	38	39	39	40	40
Employee stock options ⁴	215	295	690	650	275	270	270	270
Non-taxation of strike pay	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of salary through leave of absence/sabbatical plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Employee benefit plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of certain non-monetary employment benefits	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Family								
Spouse or common-law partner credit ⁵	1,100	1,125	1,235	1,215	1,270	1,310	1,375	1,430
Eligible dependant credit ⁵	505	545	625	610	630	645	665	680
Infirm dependant credit ⁶	7	7	5	10	10	10	10	10
Caregiver credit ⁶	24	29	35	48	50	50	50	50
Canada Child Tax Benefit (CCTB) ^{7, 8}	5,625	5,930	6,610	7,370	7,935	8,255	8,755	9,315
Deferral of capital gains through transfers to a spouse, spousal trust or family trust	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Farming and fishing								
\$500,000 lifetime capital gains exemption for farm property ⁹	365	365	330	230	230	235	235	235
Net Income Stabilization Account ¹⁰								
Deferral of tax on government contributions ¹¹	76	94	71	62	155	76	79	84
Deferral of tax on bonus and interest income ¹²	30	35	33	29	24	35	39	43
Taxable withdrawals	-60	-100	-82	-72	-99	-98	-105	-120

Personal Income Tax Expenditures (cont'd)

[illegible]

Table 1

Personal Income Tax Expenditures (*cont'd*)

	Estimates			Projections				
	1998	1999	2000	2001	2002	2003	2004	2005
	(\$ millions)							
Health								
Non-taxation of business-paid health and dental benefits	1,650	1,735	1,610	1,685	1,745	1,875	1,975	2,110
Disability tax credit (DTC) ¹⁸	265	270	275	350	365	380	400	400
Child Disability Benefit ¹⁹	-	-	-	-	-	25	50	50
Medical expense tax credit	405	495	550	575	600	645	670	695
Medical expense supplement for earners	26	34	42	53	57	59	63	67
Income maintenance and retirement								
Non-taxation of Guaranteed Income Supplement and spouse's allowance benefits	290	280	290	290	290	300	300	305
Non-taxation of social assistance benefits ²⁰	395	325	290	265	250	245	225	220
Non-taxation of workers' compensation benefits	620	635	665	640	665	705	725	760
Non-taxation of amounts received as damages in respect of personal injury or death	17	17	15	15	15	16	15	15
Non-taxation of veterans' allowances, civilian war pensions and allowances, and other service pensions (including those from Allied countries)	S	S	S	S	S	S	S	S
Non-taxation of veterans' disability pensions and support for dependants	155	160	135	130	130	130	130	130
Treatment of alimony and maintenance payments	215	170	170	170	170	170	170	170
Age credit	1,350	1,340	1,385	1,365	1,420	1,470	1,525	1,585
Pension income credit	405	415	425	405	415	425	435	440
Saskatchewan Pension Plan	S	S	S	S	S	S	S	S
Registered retirement savings plans (RRSPs) ²¹								
Deduction for contributions	6,560	6,965	7,155	6,585	7,040	7,585	8,010	8,600
Non-taxation of investment income ^{22, 23}	6,145	8,820	5,460	5,235	5,445	6,020	7,005	7,615
Taxation of withdrawals	-2,795	-2,665	-3,515	-3,440	-3,700	-4,010	-4,260	-4,605
Net tax expenditure	9,910	13,120	9,100	8,380	8,785	9,595	10,755	11,610

Table 1

Personal Income Tax Expenditures (*cont'd*)

	Estimates			Projections				
	1998	1999	2000	2001	2002	2003	2004	2005
	(\$ millions)							
Registered pension plans (RPPs) ²¹								
Deduction for contributions	4,490	5,030	4,895	4,440	4,480	4,550	4,515	4,570
Non-taxation of investment income ²³	11,445	17,285	10,420	9,830	9,790	10,325	11,415	11,795
Taxation of withdrawals	-5,985	-6,695	-6,695	-6,485	-6,895	-7,415	-7,790	-8,335
Net tax expenditure	9,950	15,620	8,620	7,785	7,375	7,460	8,140	8,030
Supplementary Information:								
Present value of tax assistance for retirement savings plans ^{24, 25}	7,510	8,245	8,100	7,455	7,930	8,145	8,415	8,810
Deferred profit-sharing plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of RCMP pensions/compensation in respect of injury, disability or death	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of up to \$10,000 of death benefits	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of investment income on life insurance policies ²⁶	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Small business								
\$500,000 lifetime capital gains exemption for small business shares	650	685	745	470	475	485	485	495
Deduction of allowable business investment losses	61	62	39	37	38	39	39	40
Labour-sponsored venture capital corporations credit ²⁷	130	180	255	225	190	190	190	190
Deferral of capital gains through 10-year reserve	S	S	S	S	S	S	S	-8
Rollovers of investments in small businesses ²⁸	-	-	5	5	10	20	25	30
Federal tax credit for flow-through share investors ²⁹	-	-	17	31	42	46	49	-10
Other items								
Non-taxation of capital gains on principal residences ³⁰								
Partial inclusion rate	815	970	1,000	785	1,265	1,060	1,060	1,065
Full inclusion rate	1,080	1,295	1,530	1,575	2,530	2,120	2,120	2,130
Non-taxation of income from the Office of the Governor General	S	S	S	S	S	S	S	S

Table 1

Personal Income Tax Expenditures (*cont'd*)

	Estimates			Projections				
	1998	1999	2000	2001	2002	2003	2004	2005
				(\$ millions)				
Assistance for prospectors and grubstakers	S	S	S	S	S	S	S	S
Charitable donations credit	1,300	1,350	1,495	1,450	1,480	1,515	1,540	1,575
Reduced inclusion rate for capital gains arising from donations of publicly listed securities and ecologically sensitive land ³¹	6	13	19	9	10	10	10	10
Political contribution tax credit ³²	10	10	19	13	13	14	17	17
Special tax computation for certain retroactive lump-sum payments ³³	S	S	S	S	S	S	S	S
Non-taxation of income of Indians on reserves	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of gifts and bequests	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Memorandum items								
Non-taxation of specified incidental expenses ³⁴	4	4	4	-	-	-	-	-
Non-taxation of allowances for diplomats and other government employees posted abroad	8	8	6	7	6	6	6	6
Child care expense deduction ³⁵	510	550	595	555	560	560	560	570
Attendant care expense deduction	S	S	S	S	S	S	S	S
Moving expense deduction	76	80	71	67	69	71	72	74
Deduction of carrying charges incurred to earn income	750	760	875	820	855	895	925	965
Partial deduction of meals and entertainment expenses	86	78	86	80	81	81	81	83
Deduction of farm losses for part-time farmers	59	62	59	53	54	55	57	57
Farm and fishing loss carry-overs	8	12	14	12	12	12	12	12
Capital loss carry-overs	145	190	225	180	185	190	195	200
Non-capital loss carry-overs	98	110	91	82	84	87	88	90
Logging tax credit	S	S	S	S	S	S	S	S
Deduction of resource-related expenditures	150	145	125	120	120	125	125	130
Reclassification of flow-through shares ³⁶	16	21	24	23	21	21	21	21
Deduction of other employment expenses	685	730	770	735	755	785	795	820
Deduction of union and professional dues	540	575	590	555	575	595	605	625

Personal Income Tax Expenditures (cont'd)

[illegible]

Table 1
Personal Income Tax Expenditures (cont'd)

Notes:

- ¹ The tax expenditure after 1999 reflects the reduction in the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000, and from two-thirds to one-half, effective October 18, 2000.
- ² The October 2000 *Economic Statement and Budget Update* increased the education credit to \$400 per month for full-time students and \$120 per month for part-time students, effective January 1, 2001. The 2001 budget introduced a measure that extends the education tax credit, beginning 2002, to people who receive taxable assistance for post-secondary education under certain government programs.
- ³ The 2000 budget raised the exemption for scholarship, fellowship and bursary income, from \$500 to \$3,000 for students eligible for the education credit. In addition, for 2000 and later tax years, the tax expenditure reflects the additional funds made available to students under the Canada Millennium Scholarship Foundation.
- ⁴ The 2000 budget increased the stock option deduction from one-quarter to one-third, effective February 28, 2000. The October 2000 *Economic Statement and Budget Update* further increased the stock option deduction from one-third to one-half, effective October 18, 2000. These changes are in line with the reductions to the capital gains inclusion rate. Increases in the tax expenditure for 2000 and 2001 reflect the higher value of stock option benefits due to the appreciation in the capital market, especially in the technology sector. Following the downturn in that sector, projections for 2002 onwards assume that the market will revert to its late 1990s level (i.e., the 1999 aggregate stock option deductions to which 2002, 2003, 2004 and 2005 tax structures are applied).
- ⁵ The spouse or common-law partner credit was previously known as the spousal credit. The eligible dependant credit was previously known as the equivalent-to-spouse credit.
- ⁶ The October 2000 *Economic Statement and Budget Update* increased the amount on which this credit is based from \$2,386 to \$3,500 for 2001.
- ⁷ Payments are reported on a calendar year basis. The 2000 budget and the October 2000 *Economic Statement and Budget Update* fully indexed the CCTB starting January 2000, increased the per-child benefit amounts and the National Child Benefit (NCB) supplement and CCTB base benefit phase-out thresholds and, effective July 1, 2004, will reduce CCTB base benefit phase-out rates. The 2003 budget increased the NCB supplement, beyond indexation adjustments, by an annual amount of \$150 per child in July 2003, \$185 in July 2005 and \$185 in July 2006.
- ⁸ The projections for 2003 to 2005 do not include the projections for the Child Disability Benefit, which are shown separately.
- ⁹ The 2000 budget reduced the capital gains inclusion rate from three-quarters to two-thirds for deposits on or after February 28, 2000. The October 2000 *Economic Statement and Budget Update* further reduced the capital gains inclusion rate from two-thirds to one-half, effective October 18, 2000. The decline in this tax expenditure after 1999 reflects, in part, reductions to the inclusion rate that reduce the value of the exemption.
- ¹⁰ The data for the three tax expenditures under the Net Income Stabilization Account is observed up to 2002. Projections for 2003 and subsequent years are based on a historical average growth rate.
- ¹¹ The 2002 figure includes a one-time government contribution of \$500 million.
- ¹² The decline in this tax expenditure for 2001 and 2002 is attributable to a drop in interest rates.
- ¹³ Estimates are based on Statistics Canada data available up to 2002, which includes cash purchase tickets for wheat, barley, oats, canola, flax and rye. Projections after 2002 are calculated using a historical average growth rate.
- ¹⁴ The 2000 budget reduced the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000. The October 2000 *Economic Statement and Budget Update* further reduced the capital gains inclusion rate from two-thirds to one-half, effective October 18, 2000. Increases in this tax expenditure after 1999 reflect reductions to the capital gains inclusion rate as well as anticipated increases in capital gains realizations resulting from changes to this measure.
- ¹⁵ The estimates and projections for this tax expenditure are different from those in previous years' publications due to a change in methodology. Under the new methodology, average marginal tax rates have been used to determine the tax expenditure of the five-year reserve by comparing the average rate if all capital gains are taxed in the year of disposition versus the average rate if taxed as reserves. The tax expenditure for a particular year represents the difference in tax yield under these two scenarios.

Table 1

Personal Income Tax Expenditures (cont'd)

- ¹⁶ Data for unincorporated businesses is not available to estimate this tax expenditure with precision.
- ¹⁷ No data is available, as it is difficult to estimate the value of unsold assets.
- ¹⁸ The 2000 budget enhanced the DTC by extending eligibility to individuals requiring extensive therapy and by expanding the list of relatives to whom the DTC can be transferred. The 2000 budget also provided a supplement of up to \$500 for children eligible for the DTC. The October 2000 *Economic Statement and Budget Update* increased the amount on which the DTC is based from \$4,293 to \$6,000 effective 2001. Moreover, the 2003 budget announced an additional \$80 million per year for persons with disabilities, but it is not taken into account in computing this tax expenditure as the Government has not yet determined how this amount will be spent.
- ¹⁹ The Child Disability Benefit is delivered as a supplement to the Canada Child Tax Benefit.
- ²⁰ The decline in this tax expenditure after 1999 reflects changes in the 1998 to 2000 budgets and the October 2000 *Economic Statement and Budget Update* to reduce tax rates for low-income individuals (e.g., increases in the personal amounts and the reduction in the lowest tax rate).
- ²¹ Estimates and projections may vary from those in last year's report due to changes in tax rates and projected levels of contributions, assets and withdrawals, and changes in methodology and assumptions. In particular, estimates of assets in trusted RPPs used in this year's report are based on market values as reported by Statistics Canada (previous estimates were based on book values). The effect is to increase the tax expenditure associated with the tax foregone on the investment income earned on RPP assets, for both the 1998–2000 estimates and the 2001–2005 projections. In addition, the rate of return on RPP/RRSP assets for the 1998–2000 estimates is derived from actual levels of RPP/RRSP assets, contributions and withdrawals (the 10-year government bond rate was used for estimates in previous reports and continues to be used for the projections). This also has the effect of increasing the tax expenditure associated with the tax foregone on investment income earned on both RPP and RRSP assets. The use of market value RPP assets and the derived rate of return on both RPP and RRSP assets for the 1998–2000 estimates explain most of the differences between the estimates in this year's and last year's report.
- ²² The 1999 RRSP assets are based on the estimate reported in Statistics Canada's Survey of Financial Security (SFS). The ratio of 1999 RRSP assets reported in the SFS to 1999 RRSP assets reported in the Statistics Canada publication *Pension Plans in Canada* is used to adjust RRSP assets for 1998 and 2000 to reflect the more comprehensive SFS estimate, which includes funds in self-administered plans (the ratio is \$408 billion/\$268 billion or 1.52).
- ²³ The increase in 1999 is attributable to a significantly higher rate of return on investment income in that year.
- ²⁴ The present-value estimates reflect the lifetime cost of a given year's contributions. This definition is different from that used for the cash-flow estimates and thus the two sets of estimates are not directly comparable. Further information on how these estimates are calculated is contained in the paper *Present-Value Tax Expenditure Estimates of Tax Assistance for Retirement Savings*, which was published in the 2001 edition of this report.
- ²⁵ The present-value tax expenditure projections presented in this year's report vary from those in previous reports due to changes in projected RPP/RRSP contribution levels and updated estimates of tax rates.
- ²⁶ Although this measure does provide tax relief for individuals, it is implemented through the corporate tax system. See under "interest credited to life insurance policies" in table 2 of this report for an estimate of the value of this tax expenditure.
- ²⁷ The projections of this tax expenditure for 2001 and 2002 are based on preliminary information on sales of shares of labour-sponsored venture capital corporations for those years. Projections assume sales remain constant after 2002.
- ²⁸ This provision was introduced in the 2000 budget. The October 2000 *Economic Statement and Budget Update* expanded this measure by increasing the size of small businesses eligible for the rollover. The 2003 budget eliminated the original investment and reinvestment limits and extended the time for acquiring eligible replacement shares. The tax expenditure for this measure is substantially lower than in previous editions. This reflects the reduction in gross capital gains that occurred as a result of the market downturn, and lower-than-expected take-up of the measure. A gradual increase in the tax expenditure is projected in later years due to the enhancements proposed in the 2003 budget, an improvement in market conditions leading to increases in realized capital gains and increased awareness of the measure.

Table 1

Personal Income Tax Expenditures (cont'd)

²⁹ The estimates for this measure have been revised to reflect both recent data and announced changes to this measure in the 2003 budget. Recent data indicates that actual expenditure under the credit was below the level estimated in the previous report. The negative figure for 2005 reflects the inclusion in income for that year of an amount equal to the credit claimed in 2004. Any excess of deductions and credits claimed over the creditable expenditure incurred is required to be included in income in the following year.

³⁰ As an expenditure renounced pursuant to a flow-through share agreement is fully deductible, the following year's income will be increased by an amount equal to the tax credit. The declines in the tax expenditures in 2001 reflect the reduction in the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000, and from two-thirds to one-half, effective October 18, 2000. The increases in 2002 reflect a rise in the volume of home sales and in the average home value. The data used for this measure was available up to 2002.

³¹ The reduced inclusion rate on donations of ecologically sensitive land and related easements, covenants and servitudes was introduced in 2000. Therefore, the data shown prior to 2000 reflect only donations of publicly traded securities. The data for the two measures cannot be separated in subsequent years. The tax expenditure shown includes only the impact of the reduced inclusion rate for capital gains arising from these donations; there is an additional revenue loss arising from the charitable donations credit. The decline in the tax expenditure from that in 2000 reflects both the decline in capital markets after that year and the reduction in the normal capital gains inclusion rate from three-quarters to one-half in 2000.

³² Revisions to the Income Tax Act beginning in tax year 2000 increased the limit for the 75% tax credit from the first \$100 contributed in a year to the first \$200. The figures from 2000 onwards reflect these changes. The higher estimated value for 2000 also reflects evidence from historical data that the level of political contributions and the value of their tax expenditure increase in the year of a federal election. Also, effective January 1, 2004, the contributions eligible for the 75% credit rate will double from \$200 to \$400, with \$200 increases in each of the higher brackets of contribution. The maximum allowable credit for any contribution of \$1,275 or more will thereby be increased to \$650. This change will apply to tax years ending after 2003. The change is reflected in the projections starting in 2004.

³³ Projections for this tax expenditure now incorporate tax filer data that only became available as of the 2000 taxation year.

³⁴ Allowances for members of Parliament and senators are no longer tax-exempt, effective January 2001.

³⁵ The 2000 budget increased the deduction limit from \$7,000 to \$10,000 for children eligible for the disability tax credit.

³⁶ This tax expenditure applies to a subset of resource-related deductions. Data was available for 1998 to 2001 on the volume of reclassified shares and was used to calculate 1998–2000 estimates and the 2001 projection. Due to volatility, the projections for 2002 to 2005 are based on a three-year historical average.

³⁷ This includes employee- and employer-paid premiums by and for self-employed workers.

³⁸ Prior to 2001, self-employed individuals could claim a non-refundable credit at the lowest marginal rate on the employer share of their Canada/Quebec Pension Plan contributions. For 2001 and subsequent years, self-employed individuals may deduct the employer share of their Canada/Quebec Pension Plan contributions paid for their own coverage. The estimates and projections shown are relative to a benchmark system in which no such deduction (or credit) is provided.

Table 1

Personal Income Tax Expenditures (*cont'd*)

⁸⁰ A number of substantial methodological difficulties call into question the accuracy and utility of estimates of the revenue implications of non-taxation of lottery and gambling winnings. The first methodological difficulty is that the data on payouts/winnings is incomplete. There is solid information on aggregate payouts only for government-run lotteries and bingos. Data on payouts at casinos, video lottery terminals, horseracing, and racetrack slot machines, which constitute a rising share of total spending on gaming, is fragmentary. In addition, no data is available on the payouts/winnings from activities sponsored by charities and other non-government organizations. Second, even if complete information on aggregate payouts were available, the revenue implications of non-taxation still could not be determined with precision. For example, if the benchmark tax system were to include taxation of gambling and lottery winnings, consideration would have to be given to including a deduction for expenses incurred in earning this income, i.e. ticket purchases or wagers/losses. This deduction could be allowed either against all income or against only lottery and gambling winnings. A threshold below which winnings would not be taxable would also be necessary, due to the large administrative cost of taxing very small prizes. In the absence of information on the distribution of prizes and the incomes of winners, the resulting potential tax base is difficult to estimate. Further, it would be impractical to tax some forms of winnings (e.g. slot machines) because of the way in which prizes are paid out. For reference, estimates and projections of the tax expenditure associated with the non-taxation of lottery and gambling winnings presented in the 2002 publication as a memorandum item were as follows (in millions of dollars):

<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>
2,945	3,940	6,665	6,545	6,040	6,085	6,135	6,185

Another important point to note with respect to the non-taxation of lottery and gambling winnings is that under federal-provincial agreements negotiated in 1979 and 1985, the federal government, in exchange for an ongoing payment, undertook to refrain from re-entering the field of gaming and betting and to ensure that the rights of the provinces in that field are not reduced or restricted.

Table 2

Corporate Income Tax Expenditures*

	Estimates		Projections ¹					
	1998	1999 ²	2000	2001	2002	2003	2004	2005
	(\$ millions)							
Tax rate reductions								
Small businesses tax rate ³	2,920	3,285	4,015	3,485	3,130	2,955	2,735	2,670
Manufacturing and processing allowance ⁴	1,680	1,900	2,280	1,885	1,330	775	125	-
Low tax rate on general income of small businesses between \$200,000 and \$300,000 ⁵	-	-	-	55	70	35	5	-
Low tax rate for credit unions ⁶	39	38	53	45	40	36	32	32
Exemption from branch tax for transportation, communications, and iron ore mining corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemption from tax for international banking centres	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tax credits								
Investment tax credits								
Scientific research and experimental development investment tax credit	1,080	1,165	1,300	1,445	1,270	1,290	1,310	1,335
Atlantic investment tax credit	85	82	87	110	96	100	105	110
Investment tax credits carried back	60	15	53	37	42	44	45	46
Investment tax credits claimed in current year but earned in prior years	665	755	815	605	725	745	770	790
Mineral exploration tax credit ⁷	-	-	-	-	-	25	28	39
Political contribution tax credit	S	S	S	S	S	S	S	S
Canadian film or video production tax credit	100	145	150	150	160	170	175	185
Film or video production services tax credit ⁸	26	48	54	55	58	91	96	100

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, published in 2000 and available on the Department of Finance Canada Web site (www.fin.gc.ca), for a discussion of the reasons for this.

Corporate Income Tax Expenditures (cont'd)

[illegible]

Corporate Income Tax Expenditures (cont'd)

	Estimates			Projections ¹					
	1998	1999 ²		2000	2001	2002	2003	2004	2005
					(\$ millions)				
Deductibility of earthquake reserves ²⁰	3	5		6	7	7	6	6	6
Cash-basis accounting	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Flexibility in inventory accounting	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of income from grain sold through cash purchase tickets	5	20		5	-15	10	S	S	S
Deferral of income from destruction of livestock	S	S		S	S	S	S	S	S
Deferral through use of billed-basis accounting by professionals	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
International									
Non-taxation of life insurance companies' world income	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemptions from non-resident withholding tax ²¹									
Dividends	190	215		205	230	210	250	285	310
Interest									
On deposits	405	410		500	360	330	360	385	395
On long-term corporate debt	145	150		130	125	115	125	135	135
Other ²²	355	360		385	385	355	385	415	425
Rents and royalties									
Copyright royalties	25	23		22	28	28	30	32	34
Royalties for the use of, or right to use, other property	17	21		20	35	36	38	40	43
Research and development royalties	S	S		S	S	S	S	S	S
Natural resource royalties	S	S		S	S	S	S	S	S
Rents from real property	S	S		S	S	S	S	S	S
Management fees	38	43		43	36	38	42	45	48
Estate or trust income	15	16		32	11	12	12	13	14
Exemption from Canadian income tax of income earned by non-residents from the operation of a ship or aircraft in international traffic	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Table 2

Corporate Income Tax Expenditures (*cont'd*)

	Estimates		Projections ¹					
	1998	1999 ²	2000	2001	2002	2003	2004	2005
			(\$ millions)					
Other items								
Transfer of income tax room to provinces	895	935	1,160	1,145	1,090	1,185	1,300	1,355
Interest credited to life insurance policies	97	98	91	66	68	69	71	73
Non-taxation of registered charities	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of other non-profit organizations	75	83	90	89	83	79	75	79
Income tax exemption for provincial and municipal corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of certain federal Crown corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Aviation fuel excise tax rebate ²³	n.a.	n.a.	n.a.	-	-	-	-	-
Surtax on the profits of tobacco manufacturers	-74	-70	-63	-80	-85	-85	-85	-85
Temporary tax on the capital of large deposit-taking institutions ²⁴	-60	-58	-48	-	-	-	-	-
Memorandum items								
Refundable taxes on investment income of private corporations								
Additional Part I taxes ²⁵	-580	-525	-670	-605	-700	-905	-1,195	-1,360
Part IV tax	-1,955	-1,515	-1,790	-1,710	-1,660	-1,755	-1,960	-2,130
Dividend refund	3,345	2,885	3,360	3,050	2,925	3,095	3,460	3,750
Net	810	845	900	735	565	435	305	260
Refundable capital gains for investment corporations and mutual fund corporations ²⁶	560	425	630	475	465	450	430	465
Loss carry-overs ²⁷								
Non-capital losses carried back	1,400	1,090	1,070	1,350	1,420	1,370	1,300	1,375
Non-capital losses applied to current year	2,625	3,450	3,410	2,995	3,245	3,245	3,300	3,260
Net capital losses carried back	160	125	145	160	165	155	125	100
Net capital losses applied to current year	360	475	605	530	320	315	310	305
Farm losses applied to current year	16	16	18	19	18	18	18	19

Table 2
Corporate Income Tax Expenditures (cont'd)

Notes:

- ¹ Unless otherwise indicated in the footnotes, changes in the projections from those in last year's edition of this document result from changes in the explanatory economic variables upon which the projections are based. Projections for 2001 and subsequent years reflect the impact of the reduction in the benchmark resulting from the change in the general corporate income tax rate from 28% to 27% on January 1, 2001, 25% on January 1, 2002, 23% on January 1, 2003, and 21% on January 1, 2004. The corporate surtax raises these rates by 1.12 percentage points.
- ² 1999 estimates are based on preliminary data.
- ³ The increase from 1998 to 2000 is attributable to a large increase in taxable income during this period. The reduction starting in 2001 results from reductions in the benchmark rate and a lower growth track for projected taxable income. Projections for 2003 and subsequent years also reflect the impact of the 2003 budget proposal to increase the amount of income eligible for the small business deduction from \$200,000 to \$225,000 in 2003, \$250,000 in 2004, \$275,000 in 2005, and \$300,000 in 2006.
- ⁴ Although this tax expenditure will be effectively eliminated on January 1, 2004, when the general corporate income tax rate is reduced to 21%, many firms reporting income in the 2004 taxation year will earn a portion of that income in the 2003 calendar year, before the tax expenditure is effectively eliminated.
- ⁵ This measure was announced in the 2000 budget and became effective January 1, 2001. On that date the general federal corporate income tax rate on income between \$200,000 and \$300,000 earned by a Canadian-controlled private corporation from an active business carried on in Canada was reduced to 21%. The lower rate on the general income of small businesses and the change in the general federal tax rate effective January 1, 2001, only partially affect the projection for tax year 2001 since many firms reporting income in the 2001 tax year earned a portion of that income in the 2000 calendar year, before the rate reductions were introduced. Subsequent declines in the tax expenditure are a result of the reduction in the general corporate income tax rate and the increase, announced in the 2003 budget, in the amount of income eligible for the small business deduction. This measure is effectively eliminated on January 1, 2004, when the general corporate income tax rate is reduced to 21%. Some tax expenditure occurs in 2004, however, as many firms reporting income in the 2004 tax year will earn a portion of that income in the 2003 calendar year.
- ⁶ Credit unions are eligible for the lower federal tax rate of 12% provided to small businesses.
- ⁷ This tax credit was introduced in the 2003 budget and applies to 2003 and subsequent tax years. It is phased in starting at 5% in 2003, 7% in 2004 and 10% in subsequent years.
- ⁸ Projections for 2003 and subsequent years reflect the impact of the 2003 budget proposal to increase the rate of the credit from 11% to 16%.
- ⁹ The increase in 2000 and 2001 reflects a projected increase in capital gains and the reduction in the capital gains inclusion rate from three-quarters to one-half during 2000. The reduction after 2001 reflects a projected decrease in capital gains as well as the reduction in corporate income tax rates.
- ¹⁰ The tax expenditure is calculated as the revenue cost of the resource allowance net of non-deductible Crown royalties and provincial mining taxes. Budget 2003 proposed changes to the income taxation of the resource sector to be phased in over a five-year period, including the reduction in the corporate statutory rate for income tax applying to income earned from resource activities, the deductibility of royalties and the elimination of the resource allowance, commencing in 2003. During the transition period 2003-2007, the determination of the tax expenditure reflects both the declining tax rate for the resource sector and the proportions of the resource allowance and non-deductible Crown royalties and provincial mining taxes to be established in legislation, so that, by 2007, this tax expenditure amount is effectively reduced to zero. See the technical paper *Improving the Income Taxation of the Resource Sector in Canada*, Department of Finance Canada, March 2003, for further details.
- ¹¹ Additions to depletion pools were eliminated as of January 1, 1990. As a result, the declining value of this tax expenditure reflects the fact that these pools are being drawn down, albeit subject to successor rule limitations where applicable.
- ¹² The decline in the tax expenditure in 2001 results from the reduction in the benchmark rate and a decline in the projected taxable income.
- ¹³ The non-deductibility of advertising expenses in foreign media represents a negative tax expenditure since the deduction of an expense incurred to earn income is denied.
- ¹⁴ The tax measures in this section allow a deferral of income taxes from the current to a later tax year. The publication *Tax Expenditures: Notes to the Estimates/Projections* provides details on each deferral item.

Table 2

Corporate Income Tax Expenditures (cont'd)

- ¹⁵ The amount of this tax expenditure can fluctuate from year to year depending upon the amount of current-year losses and the availability of income against which to apply these losses.
- ¹⁶ The amount of this tax expenditure can fluctuate significantly from year to year depending primarily upon the level of construction activity. Therefore, it is projected at its historical average.
- ¹⁷ This item is referred to as "Available for use" in the publication *Tax Expenditures: Notes to the Estimates/Projections*.
- ¹⁸ The tax deferral associated with taxation of capital gains upon disposition of property, rather than on an accrual basis, represents a deviation from the benchmark tax system and is therefore a tax expenditure.
- ¹⁹ The amount of this tax expenditure can fluctuate significantly from year to year depending upon advertising expenses claimed. Therefore, it is projected at its historical average.
- ²⁰ This measure was introduced in 1998. The numbers are now based on data for 1998, 1999 and 2000 received from the Office of the Superintendent of Financial Institutions.
- ²¹ Estimates and projections were computed on the basis of an analysis of payments to non-residents and withholding tax collections available for 1999, 2000 and 2001, the last three years for which complete data is available. Figures for 1998 and from 2002 to 2005 are, respectively, backward estimates and forward projections based on the 1999 to 2001 estimates and projections.
- ²² This category includes interest paid to non-resident persons or organizations that would be exempt from income tax in Canada were they residents in Canada. Also included is interest paid under certain securities-lending arrangements exempt under subparagraph 212(1)(b)(xii) of the Income Tax Act, and interest exempt under certain other domestic and treaty provisions.
- ²³ The aviation fuel excise tax rebate, which was effective for calendar years 1997 to 2000, provided an excise tax rebate on the aviation fuel used by airline companies. The rebate was limited to \$20 million per year per associated group of companies. In order to receive a rebate, a company had to agree to reduce its income tax losses by \$10 for every \$1 of rebate.
- ²⁴ This measure was first introduced in the 1995 budget and extended in subsequent budgets. The temporary tax was not extended beyond its scheduled expiry date of October 31, 2000.
- ²⁵ This item includes the additional 6 2/3% refundable tax on investment income as well as, for years after 2000, the Part I tax paid on investment income in excess of the benchmark rate. The increase after 2001 results from the increase in the difference between the Part I tax on investment income and the benchmark rate.
- ²⁶ The larger amounts in 1998 and 2000 are due to a significant increase in the capital gain dividends distribution. The projections are lower after 2000 due to the phased-in reductions in the general corporate income tax rate and the reduction in the capital gains inclusion rate.
- ²⁷ The impact of loss carry-overs can fluctuate significantly from year to year depending upon the amount of current and prior years' losses and the availability of income against which to apply these losses.
- ²⁸ Half of these expenses are deductible for income tax purposes, given that a portion of meal and entertainment expenses is incurred to earn income, and is therefore a legitimate business expense, while the remaining portion reflects personal consumption. The estimates and projections provided reflect the additional tax revenue that would be received if no deduction were allowed (i.e., that there is no business purpose to the expenditure).
- ²⁹ The estimates are higher in 2004 to take into account the increase in the capital deduction from \$10 million to \$50 million. Estimates afterward are lower, reflecting the reduction in the federal capital tax rate. Both measures were announced in the 2003 federal budget.
- ³⁰ The cost of the Syncrude Remission Order ("Order Respecting the Remission of Income Tax for the Syncrude Project," P.C. 1976-1026, May 6, 1976 [C.R.C. 1978 Vol. VII, c. 794]) is published annually in the Public Accounts of Canada (ISBN 0-660-177792-7).

Table 2

Corporate Income Tax Expenditures (*cont'd*)

- ³¹ Bill C-22 (An Act to Amend the Income Tax Act and Related Statutes), which contained an amendment to repeal the NRO provisions for elections made after February 27, 2000, received Royal Assent on June 14, 2001 [S.C. 2001, c. 17, s. 131]. To allow for an orderly restructuring of their operations, existing NROs are entitled to retain their status until the end of their last tax year that begins before 2003. However, existing NROs are not allowed to issue new shares, other than by way of reorganization, or increase debt levels, to finance new investments, subject to grandfathering of arrangements in writing entered into before February 28, 2000.
- ³² This measure allows a public corporation that qualifies as an investment corporation to benefit from elements of the integration system, which are usually available only to private corporations.
- ³³ The taxation of capital gains is affected by provisions that permit taxpayers to defer realization for tax purposes through various rollover provisions. Since the benchmark tax structure includes various rollover provisions that permit the deferral of capital gains when a corporate structure is changed, this item is identified separately for information purposes.

Table 3
GST Tax Expenditures*

	Estimates				Projections			
	1998	1999	2000	2001	2002	2003	2004	2005
	(\$ millions)							
Zero-rated goods and services								
Basic groceries ¹	2,930	3,045	3,180	3,355	3,515	3,710	3,935	4,140
Prescription drugs ¹	265	285	300	320	335	355	375	395
Medical devices ¹	100	110	115	125	130	135	145	150
Agricultural and fish products and purchases	S	S	S	S	S	S	S	S
Certain zero-rated purchases made by exporters	S	S	S	S	S	S	S	S
Non-taxable importations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Zero-rated financial services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tax-exempt goods and services								
Residential rent (long-term) ¹	1,165	1,155	1,150	1,175	1,245	1,325	1,405	1,475
Health care services ¹	475	475	495	530	555	590	625	660
Education services (tuition) ^{1, 2}	330	370	395	415	435	460	490	515
Child care and personal services ¹	140	140	140	140	150	155	165	175
Legal aid services	20	20	20	20	25	25	25	30
Ferry, road and bridge tolls ¹	5	5	10	10	10	10	15	15
Municipal transit ¹	80	85	95	90	95	100	110	115
Exemption for small businesses	125	135	145	155	165	175	185	195
Water and basic garbage collection services ^{1, 3}	130	135	140	150	155	160	175	180
Domestic financial services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Certain supplies made by non-profit organizations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, published in 2000 and available on the Department of Finance Canada Web site (www.fin.gc.ca), for a discussion of the reasons for this.

GST Tax Expenditures (cont'd)

[illegible]

Table 3

GST Tax Expenditures (cont'd)

Notes:

- ¹ The national GST base model used to generate these estimates and projections has been updated and is now based on the 1999 national input-output tables from Statistics Canada and the latest release of the National Income and Expenditure Accounts. In some cases, these updates cause significant changes in the estimates and projections, relative to numbers published in preceding publications.
- ² This tax expenditure was revised upward as a result of a change in National Accounts methodology.
- ³ The upward revisions are based on more recently available municipal data used in the national input-output tables.
- ⁴ Rebates paid to governments are not recorded as tax expenditures—the Crown's constitutional immunity from taxation is part of the benchmark tax system.
- ⁵ The housing rebate is based on information provided by Statistics Canada. Revisions from 2002 forward reflect increased investment activity in residential construction.
- ⁶ The new residential rental property rebate was introduced in the 2000 budget for new construction or substantial renovations commencing after February 27, 2000.
- ⁷ The methodology for estimating this tax expenditure, which was derived as part of a review of the Visitor Rebate Program conducted during 1997, has been updated to reflect more recent information.
- ⁸ The public sector body rebates are based on Canada Customs and Revenue Agency administrative data. In some cases, the use of more recent administrative data leads to revisions of these rebates.
- ⁹ Since the value of these rebates is influenced by provincial budgetary decisions, the projected values for the relevant years are simply the values estimated for 2001.
- ¹⁰ These rebates are offered to Aboriginal governments that have an agreement providing for a GST refund for goods and services acquired for self-government activities. The rebates are based on Canada Customs and Revenue Agency administrative data.
- ¹¹ Estimates and projections are based on personal income tax data.
- ¹² The numerical approach used to derive the tax expenditure figures is tightly integrated with the tax expenditure estimates and projections reported for the personal and corporate income tax system.
- ¹³ This item includes the apprentice vehicle mechanics' tools deduction.

APPENDIX: DESCRIPTION OF TAX EXPENDITURES INTRODUCED SINCE 2000

All tax provisions introduced since *Tax Expenditures: Notes to the Estimates/Projections* was published in September 2000 are described below.

Personal Income Tax

Education

Apprentice Vehicle Mechanics' Tools Deduction

Objective: To allow apprentice vehicle mechanics to deduct from their income the extraordinary portion of the cost of new tools they have to provide as a condition of their on-the-job training. (*The Budget Plan, 2001*)

Starting in 2002, apprentice vehicle mechanics can deduct the extraordinary portion of the cost of new tools they purchase in the taxation year or in the last three months of the previous taxation year if the apprentice is in his or her first year.

In order to be eligible, the apprentice must be registered with a provincial or territorial body in a program leading to designation as a mechanic licensed to repair automobiles, aircraft or any other self-propelled motorized vehicle.

The eligible deduction is the portion of tool costs that exceed \$1,000 or 5% of the individual's apprenticeship income for the year, whichever is greater. Any part of the eligible deduction that is not taken in the year can be carried forward and deducted in subsequent taxation years. The apprentice's employer must certify that the tools are required as a condition of, and for use in, the apprenticeship.

The cost of the individual's tools for other income tax purposes is the acquisition cost less the deductible portion of that cost. If an individual (or a non-arm's-length person) disposes of the tools for proceeds in excess of this reduced cost, the excess amount is included in income in the year of disposition. However, tools are eligible for the existing rollovers that apply to transfers of property to a corporation or a partnership.

The individual is also eligible for a rebate of the goods and services tax/harmonized sales tax paid on the portion of the purchase price of the new tools that is deducted in computing employment income.

These measures apply to the 2002 and subsequent taxation years.

Adult Basic Education—Tax Deduction for Tuition Assistance

Objective: To provide a taxable income deduction for tuition fees for adult basic education. (*The Budget Plan, 2001*)

Individuals may deduct, in computing their taxable income, the amount of tuition assistance received for adult basic education or other programs that are ineligible for the tuition tax credit, to the extent that this assistance has been included in their income. In order to be eligible, the tuition assistance must be provided under:

- Part II of the Employment Insurance Act (or a similar program provided by a province or territory under a Labour Market Development Agreement); or
- another training program established under the authority of the Minister of Human Resources Development, such as the Employability Assistance for People with Disabilities initiative or the Opportunities Fund for Persons with Disabilities.

This measure was made retroactive to 1997 and subsequent taxation years.

Employment

Canada and Quebec Pension Plan Deduction for the Self-Employed (now included in memorandum items under “non-taxation of employer-paid premiums”)

Objective: This measure ensures that self-employed individuals are not disadvantaged relative to an owner-operator who is also an employee of the corporation. (*Economic Statement and Budget Update, October 2000*)

Under the Canada Pension Plan and Quebec Pension Plan (C/QPP), self-employed individuals are required to pay both the employer and employee portion of C/QPP contributions. As of January 1, 2001, self-employed individuals are permitted to deduct the portion of C/QPP contributions that represent the employer’s share.

Farming and Fishing

Deferral of Capital Gains Through Intergenerational Rollovers of Family Farms and Commercial Farm Woodlots

Objective: To facilitate intergenerational rollovers of commercial woodlot operations that are farming. (*The Budget Plan, 2001*)

A taxpayer may make an intergenerational transfer of farm property in Canada on an income-tax-deferred rollover basis, if the property was principally used in a farming business in which the taxpayer or a family member was actively engaged on a regular and continuous basis. Similar rules apply to intergenerational transfers of shares of family farm corporations and interests in family farm partnerships.

The operation of a commercial woodlot may, in certain circumstances, constitute a farming business. However, the intergenerational rollovers are generally not available for commercial woodlots because, aside from monitoring, the management of a woodlot may not demand regular and continuous activity. As a result, many commercial woodlot owners are subject to income tax on intergenerational transfers of their woodlots. This can be detrimental to the sound management of the resource if woodlots are harvested prematurely to pay the tax.

Where the regular and continuous activity test set out in the existing rollover rules cannot be met, a new test will be implemented strictly for the purpose of applying those rules to commercial woodlot operations. The new test allows an intergenerational rollover where the conditions of the existing rollover rules are otherwise met and the transferor or a family member is actively involved in the management of the woodlot to the extent required by a prescribed forest management plan.

This measure applies to transfers that occur after December 10, 2001.

Health

Child Disability Benefit

Objective: To assist low- and modest-income families with the extra expenses associated with the care of a child with a disability. (*The Budget Plan, 2003*)

In recognition of the special needs of low- and modest-income families with a child with a disability, the 2003 budget introduced a \$1,600 Child Disability Benefit (CDB). The CDB will be a supplement of the CCTB and will be paid for children who meet the eligibility criteria for the disability tax credit (DTC).

The full \$1,600 CDB will be provided for each eligible child to families having a net income below the amount at which the National Child Benefit (NCB) supplement is fully phased out (i.e., \$33,487 in July 2003 for families having three or fewer children). Beyond that income level, the CDB will be reduced based on family income at the same rates as the NCB supplement. For the 2003–2004 benefit year, benefits will be reduced by 12.2% for one child with a disability, 22.7% for two children with disabilities, and 32.6% for three or more children with disabilities. The CDB amount and income thresholds will be indexed to inflation.

The CDB was effective in July 2003 but will become payable and be included with the CCTB payment starting in March 2004. Accordingly, in March 2004 eligible families will receive a retroactive payment for the July 2003 to March 2004 period.

Families will continue to be able to claim the DTC and the DTC supplement for children with disabilities. For example, in 2003, a one-earner family with one child with a severe disability and an income of \$30,000 will receive \$1,600 from the CDB, plus a tax reduction of \$1,591 under the DTC and DTC supplement for children, for a total of \$3,191.

Small Business

Federal Tax Credit for Flow-Through Share Investors

Objective: To promote mineral exploration activity, particularly in rural communities across Canada that depend on mining. (*Economic Statement and Budget Update*, October 2000)

This temporary investment tax credit is available to individuals (other than trusts) at a rate of 15% of specified surface “grass roots” mineral exploration expenses incurred in Canada pursuant to a flow-through share agreement.

The credit applies to eligible expenditures incurred by a corporation before 2005 and renounced to an individual pursuant to a flow-through share agreement. The credit also applies to eligible expenditures incurred by a corporation before 2006 that are deemed to have been incurred by a flow-through share investor under the “look-back” rule. The look-back rule allows a corporation that incurs expenses in a given calendar year to renounce those expenses to a flow-through share investor, effective as of the last day of the preceding year.

The flow-through share investor is entitled to use this tax credit to reduce federal personal income tax otherwise payable. This non-refundable credit will reduce the cumulative Canadian exploration expense pool of investors in the years following the year in which it is claimed.

Corporate Income Tax

Mineral Exploration Tax Credit

Objective: This tax credit is part of a package of income tax changes that will improve the international competitiveness of the resource sector and promote the efficient development of Canada’s natural resource base. (News Release: *Finance Minister Tables Notice of Ways and Means Motion to Implement Resource Sector Tax Changes Announced in Budget 2003*, June 9, 2003)

The Government proposes to introduce a 10% tax credit for qualifying mineral exploration expenses. The new credit will apply to exploration and pre-production development expenditures for diamonds and base or precious metals. The new tax credit will be available only to corporations, and will be neither refundable nor transferable under a flow-through share agreement. The new corporate mineral tax credit will apply in respect of eligible expenditures made on or after January 1, 2003, at a rate of 5%. The rate will rise to 7% on January 1, 2004, and will be fully phased in at a 10% rate on January 1, 2005.

Transitional Arrangement for the Alberta Royalty Tax Credit

Objective: This transitional arrangement for smaller oil and gas producers is part of a package of income tax changes that will improve the international competitiveness of the resource sector and promote the efficient development of Canada's natural resource base. (News Release: *Finance Minister Tables Notice of Ways and Means Motion to Implement Resource Sector Tax Changes Announced in Budget 2003*, June 9, 2003)

Under the new resource tax structure, which allows deductibility of royalties and mining taxes, it is appropriate to deduct only the amount of Crown royalties or mining taxes actually paid. The Province of Alberta refunds a minimum of 25% of the first \$2 million in Alberta Crown royalties paid by corporate groups, under the Alberta Royalty Tax Credit (ARTC) program. Under the new structure for resource taxation, refunds provided under the ARTC will reduce the amount of Crown royalties deductible or be included in income if the taxpayer has already deducted Crown royalties that include the refund. The transitional arrangement will reduce, during a 10-year transitional phase-in period, the portion of the refund that reduces deductible royalties or that must be included in income for tax purposes. Specifically, only half of the ARTC will reduce royalties or be included in computing income for tax purposes for calendar years 2003 through 2007. For years 2008 through 2012, the rate will increase by 10 percentage points per year to 100% in 2012.

The transitional measure will be available in full to individuals who receive the ARTC, and to taxable Canadian corporations that pay no more than \$2 million in Alberta Crown royalties, as defined for ARTC purposes. For corporations that pay more than \$2 million in Alberta Crown royalties, the benefit of the transitional arrangement will be reduced on a straight-line basis, such that the benefit of the additional transition is completely removed for corporate groups that pay \$5 million or more of Alberta Crown royalties.

PART 2

TAX EVALUATIONS AND RESEARCH REPORTS

**LONG-RUN PROJECTIONS OF THE TAX EXPENDITURE
ON RETIREMENT SAVINGS**

1. INTRODUCTION

The aging of the Canadian population and the movement of the baby boom cohorts into their retirement years will increase pressures on government spending in areas such as health care and the Old Age Security and Guaranteed Income Supplement programs (OAS/GIS). Governments have responded by improving their fiscal positions not only to address immediate problems but to begin to prepare for these pressures.

Population aging will not have only negative effects on governments' fiscal balances, however. The shift of the baby boom cohorts into retirement will reduce the cash-flow tax expenditure cost of registered pension plans (RPPs) and registered retirement savings plans (RRSPs) as taxable withdrawals from the plans grow faster than tax-deductible contributions. Some analysts have projected tax expenditure declines sufficient to offset a large portion of the expected increases in health and public pension costs.

In this context, this paper analyzes the determinants of the tax expenditure cost of RPP and RRSP saving and projects the cost to 2041 under a variety of assumptions. While considerable uncertainty must be attached to any long-run projection, the general conclusion of the paper is that the tax expenditure cost will likely decline but that the reduction in the tax expenditure may be small in relation to the projected increases in health and public pension costs.

Background

Canada provides favourable tax treatment for saving in RPPs, RRSPs and deferred profit-sharing plans. Contributions to these plans are deductible from taxable income and investment income earned inside them is tax-exempt, while benefits paid out of them are taxable. In this way, income set aside for retirement is taxed when it is received rather than when it is saved. This deferral of tax has the same effect as a complete exemption of tax on the investment income earned on a non-deductible investment (see example in Appendix A). Where the taxpayer faces a lower marginal tax rate in retirement than while saving, an additional "income-averaging" benefit is provided.

The Department of Finance Canada currently publishes two annual estimates of the tax expenditure on saving in RPPs and RRSPs. The *cash-flow* tax expenditure measures the amount of revenue foregone in the current year due to the tax treatment—that is, the amount of additional revenue that would be collected in the year if the tax preference were eliminated without any change in the pre-tax flow of funds into and out of the plans.

It is calculated as: (a) the tax foregone on income contributed to the plans *plus* (b) the tax foregone on investment income in the plans *less* (c) the tax collected on benefits paid out of the plans. This tax expenditure varies with short-term conditions such as the prevailing rate of return on investment as well as longer-term factors such as the maturity of the pension system and demographic trends that affect contribution and benefit levels.

Because of the variability of this cash-flow measure and because it does not reflect the eventual taxation of the deferred income, the Department of Finance Canada has begun to supplement it with a *present-value* tax expenditure estimate. This is a measure of the lifetime cost to the Government of the RPP and RRSP contributions made in a year. It is equal to: (a) the current cost of the deduction provided for the contributions *plus* (b) the discounted cost of the tax foregone on the investment income earned on the contributions *less* (c) the discounted value of the taxes collected on pension benefits and RRSP withdrawals derived from the contributions and associated investment income.

It is the *cash-flow* tax expenditure that best measures the effect of the tax provisions on the fiscal position of governments as the pension system evolves over time with an aging population.

Some analysts have pointed out that the uncollected tax on RPP and RRSP balances could be treated as an asset of governments and that governments will see fiscal gains as the aging of the baby boomers brings an acceleration of withdrawals from the plans.^{1 2 3} The projected declines in the tax expenditure appear sufficient to offset much of the

¹ Robbins and Veall have provided an estimate of \$200 billion for the present value of the future stream of personal income tax revenues attributable to RPP and RRSP accumulations existing in 1999. (Jenna Robbins and Michael R. Veall, "Future Taxes on Pension Savings as a Government Asset," C.D. Howe Institute backgrounder, No. 63, October 2002.)

² Marcel Mérette has simulated future savings flows and projected a decline in the cash-flow tax expenditure for the federal and provincial governments together from about 3.5% of gross domestic product (GDP) in 2001 to about -1.5% of GDP in 2043. This corresponds to a drop in the federal tax expenditure from 2.3% to -1.0%. In 2001 dollars, a reduction of 3.3% of GDP in the federal tax expenditure implies a fiscal gain of \$36 billion. (Marcel Mérette, "The Bright Side: A Positive View on the Economics of Aging," Institute for Research on Public Policy, *Choices*, Vol. 8, No. 1, March 2002. The tax expenditure estimates are taken from the baseline projection presented in Figure 4.)

³ Robert Brown has projected a decline in the federal tax expenditure, expressed in 1991-1995 dollars, from \$14.6 billion in 2001 to -\$15.5 billion in 2041. Note that Brown excludes a portion of the tax expenditure as normally calculated, namely the foregone tax on investment income earned by seniors. This reduces the tax expenditure and increases the extent of its decline as the population ages. (Robert L. Brown, "Paying for Canada's Aging Population: How Big Is the Problem?," Canadian Institute of Actuaries Member's Paper, March 2002, and "An Argument for Higher RRSP Limits," *Benefits Canada*, September 2002.)

increase in health and public pension costs that is projected to accompany the aging of Canada's population over the next 40 years.⁴

Given the potential importance of these fiscal effects, the aim of this paper is to examine closely the determinants of the tax expenditure and to provide projections of it to 2041 using the best available data. The paper proceeds as follows. Section 2 explores the relationship of the tax expenditure to economic variables and other trends using simplified models of the population of retirement savers. Section 3 outlines the data, assumptions and methods employed in our tax expenditure projections. Section 4 provides the results of our simulations, using various assumptions with respect to key parameters. Section 5 concludes.

2. SIMPLE MODELS OF THE TAX EXPENDITURE

The cash-flow tax expenditure, TE_t , for year t may be expressed as

$$TE_t = m_C C_t + m_A i A_{t-1} - m_B B_t \quad (1)$$

where C_t and B_t are contributions to and benefits paid out of RPPs and RRSPs in year t , A_{t-1} is the level of assets in the plans at the end of the previous year, i is the nominal pre-tax rate of return on plan assets in the year and m_C , m_A and m_B are the average marginal tax rates applicable to contributions, investment income and benefits (with i and m assumed constant over time).⁵

The formula makes it evident that changes in the level of the tax expenditure over time depend primarily on differences in the growth patterns of contributions, assets and benefits. While any change in the level of the tax expenditure affects the fiscal balance, it is of particular interest to see what is needed to produce a negative value of TE_t . To begin with, it is clear that simply having a higher level of benefits than contributions is not sufficient. For $TE_t < 0$, the tax collected on benefits must exceed the foregone tax on both contributions and asset income.

⁴ See, for example, Harriet Jackson and Chris Matier (JM), *Public Finance Implications of Population Ageing: An Update*, Department of Finance Canada, Economic and Fiscal Policy Working Paper No. 2003-03, available at www.fin.gc.ca, and Chief Actuary, Office of the Superintendent of Financial Institutions, *Actuarial Report (5th) on the Old Age Security Program as at 31 December 2000*, May 7, 2002, available at www.osfi-bsif.gc.ca. In the JM projections, which assume that age-specific per capita costs rise in line with wage growth, population aging raises public spending on health care by 3.0 percentage points of GDP by 2041 and OAS/GIS costs by 2.4 percentage points. In the Chief Actuary's projections, which assume slower growth in age-specific benefits, population aging increases OAS/GIS costs by about 0.7% of GDP. From these projections, population aging may increase health and OAS/GIS costs by between 3.7% and 5.4% of GDP by 2041. In 2001 dollars, the range of increases is \$40 billion to \$59 billion.

⁵ Use of the nominal interest rate reflects the fact that nominal income, rather than real income, is used as the benchmark tax base in the annual tax expenditure reports.

Further general information on the relationships can be obtained by making the simplifying assumption of a single marginal tax rate, $m_C = m_A = m_B = m$. With this assumption, and noting that

$$A_t = (1+i)A_{t-1} + C_t - B_t \quad \text{or} \quad A_t - A_{t-1} = iA_{t-1} + C_t - B_t \quad (2)$$

the tax expenditure may be written as

$$TE_t = m(A_t - A_{t-1}). \quad (3)$$

This tells us that a year-over-year decline in the current-dollar level of RPP/RRSP assets is necessary to produce $TE_t < 0$.

Steady State Cases

We can learn more about the tax expenditure by examining *steady state* cases in which the pension system is mature (i.e., the contribution and benefit rates as a percentage of earnings are unchanging), there are no demographic shifts (i.e., the population at each age group is equal and grows at a constant rate over time), the rate of return on assets is constant, and earnings (and GDP) grow at a constant rate. In such cases, contributions, assets, benefits and the tax expenditure will all occupy constant fractions of GDP.

Let Y_t be GDP, take $A_t = kY_t$ and take g as the growth rate of earnings and GDP so $Y_t = (1+g)Y_{t-1}$.

Then, using (3), we can express the tax expenditure as a fraction of GDP as

$$\frac{TE_t}{Y_t} = mk \left(\frac{g}{1+g} \right) \quad (4)$$

This demonstrates that in a steady state case, the tax expenditure will be positive as long as $g > 0$, meaning that GDP growth, produced by any of population growth, real wage growth or inflation, is positive. For example, with plausible values, $m = 0.20$, $k = 1.33$ and $g = 0.0302$ (1% real growth and 2% inflation), we would have a federal $TE_t = 0.78\%$ of GDP if we were in a steady state.⁶

⁶ As detailed in Table 1 in Section 3, the federal average marginal tax rates on contributions, investment income and benefits (under the 2004 tax structure) are 21.4%, 20.6% and 17.6% respectively. The weighted average of these rates is very close to 20%. In a steady state system, the value of k depends on the contribution rate (C_t/Y_t), i , g , and the duration of the contribution and payout periods. For the model and parameter values of Case 1 in this section, $k = 1.33$.

Another interesting steady state result concerns the relationship between contributions and benefits. By rearranging (2) and using the previous assumptions, we can write the excess of benefits over contributions, as a fraction of GDP, as

$$\frac{(B_t - C_t)}{Y_t} = k \frac{(i - g)}{(1 + g)} \quad (5)$$

This shows that benefits, funded out of both contributions and investment income, can exceed contributions on a permanent basis. The size of the excess depends on the asset level and the difference between the rate of return on assets and the GDP growth rate. With the same parameter values as above and $i = 0.0557$ (a 3.5% real interest rate and 2% inflation), for example, the excess of benefits over contributions equals 3.3% of GDP. With a contribution rate of 3.0% of GDP, benefits are permanently 110% higher than contributions (6.3% vs. 3.0% of GDP).

Even where there is a preponderance of benefits over contributions, the tax expenditure remains positive in a steady state case with nominal GDP growth. Expressions (2) and (3) show how this occurs. For $TE > 0$, the amount of investment income in the year must be greater than the excess of benefits over contributions. This point is relevant to non-steady-state cases as well. In most situations where benefits substantially exceed contributions, they will be accompanied by high levels of assets and investment income.

Maturing Pension System

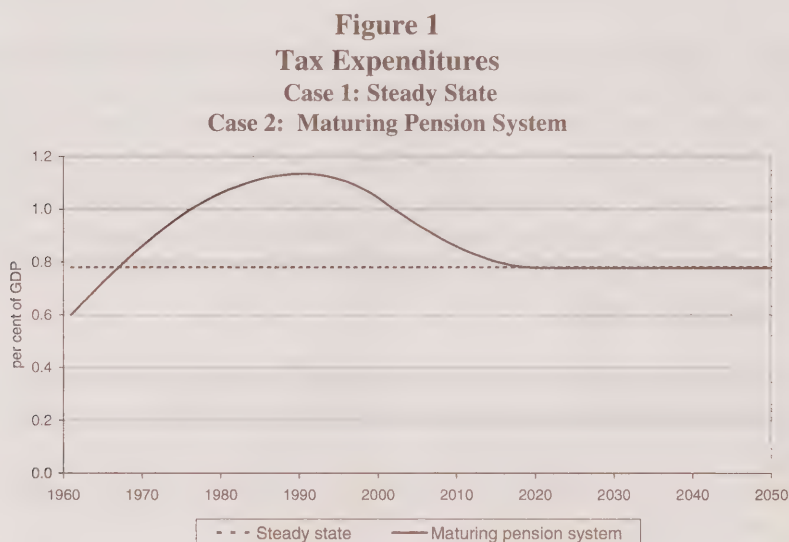
Steady state results provide only a limited guide to future tax expenditure levels. As well as ignoring possible trends or fluctuations in economic variables such as investment yields and the rate of wage growth, they cannot take into account two key determinants of the tax expenditure level in Canada: the maturing of the RPP/RRSP system and the aging of the baby boom cohorts.

By the maturing of the pension system is meant an increase in age-specific contribution rates toward a reasonably stable level during the developmental phase of the system, and the consequential increases in asset and benefit levels.⁷ The degree of maturity of the system will be examined more closely in Section 4. However, it may be noted that, while pension plans have existed throughout the 20th century, RRSPs were introduced in 1957 and became popular starting in the 1970s. In addition, improvements in pension standards in the 1980s (e.g., earlier vesting, portability options) increased the effectiveness of RPPs in delivering pension benefits.

⁷ There are really two phases in the maturing of a pension system: one in which age-specific contribution rates are increasing and a second in which contribution rates are constant but asset and benefit levels are still affected by the lower contribution rates of earlier years. Only when the oldest beneficiaries have contributed at the steady state rate since the beginning of their working careers is the system fully mature.

To investigate the effects of a maturing pension system and the aging of the baby boomers, we constructed a simplified model of the retirement saving process. In this model, individuals save from age 25 to 64 and draw pension benefits from age 65 to 84. The pension of each individual is drawn in a level (un-indexed) life annuity that, by age 84, exhausts the assets accumulated at age 64. In the first cases, there are an equal number of people in each single-year age cohort.

Figure 1 presents time series of tax expenditure levels for two cases. In **Case 1: Steady State**, contribution rates are constant across (pre-retirement) age groups and constant over time. As above, the yield on plan funds is 5.57% and the rate of wage growth is 3.02%. With an aggregate contribution rate of 3% of GDP and a constant marginal tax rate of 20% on contributions, investment income and benefits, the resulting tax expenditure is constant at 0.78% of GDP.

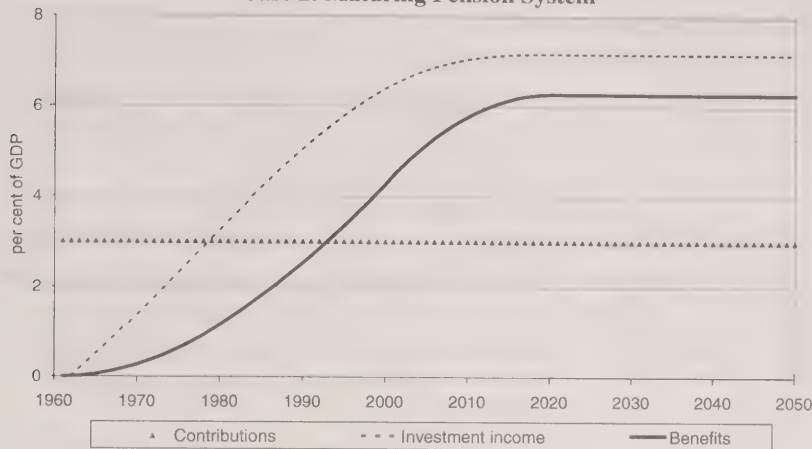


In **Case 2: Maturing Pension System**, we assumed that there were no contributions before 1961. The pension of someone reaching age 65 in 1971, for example, is based on only 10 years of contributions. Here, the tax expenditure first rises well above its steady state level before declining back to it. As we assume that contributions are made at year-end, there is no investment income and no pension benefits in 1961. For that year, $TE = mC_t$ (20% of 3% of GDP = 0.6% of GDP). The system attains full maturity and its steady state TE level of 0.78% of GDP only in 2020, the first year in which the 84-year-olds, who were age 25 in 1961, have contributed for their full careers.

Figure 2 helps to explain the simulation result by displaying how the three components of the tax expenditure, C_t , iA_{t-1} and B_t , evolve over time. As the history of contributions progresses from its 1961 start, asset and investment income levels grow and so, with a lag, do benefit levels. The lag in the growth of benefits behind that of assets and investment income is what creates the temporary increase in the tax expenditure above its steady state level.

With regard to the prospect of fiscal gains in the years to come, we see that a maturing pension system can create a fairly long period of declining tax expenditures—from 1990 to 2020 in this stylized model—but only from a level that is temporarily above its steady state value.

Figure 2
Tax Expenditure Components
Case 2: Maturing Pension System



Note: While benefits are subtracted in determining TE , they are shown as positive here. This allows us to see how the difference, $iA - B$, contributes to TE .

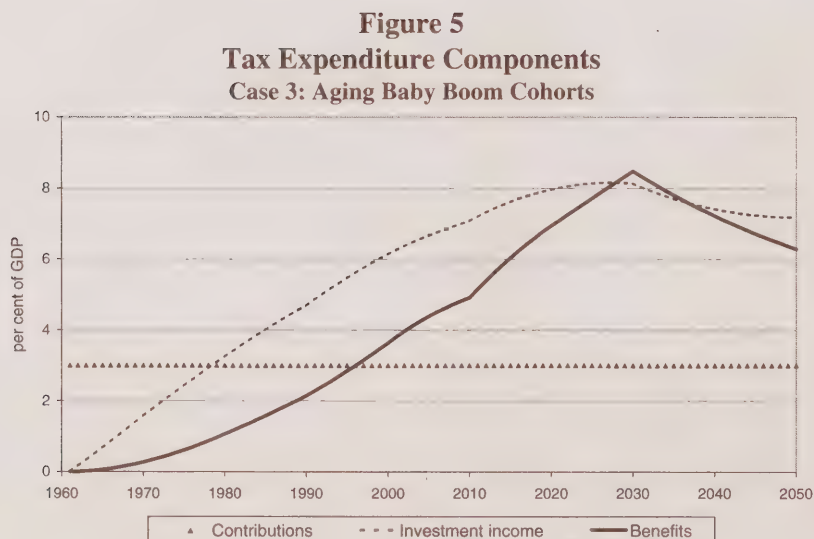
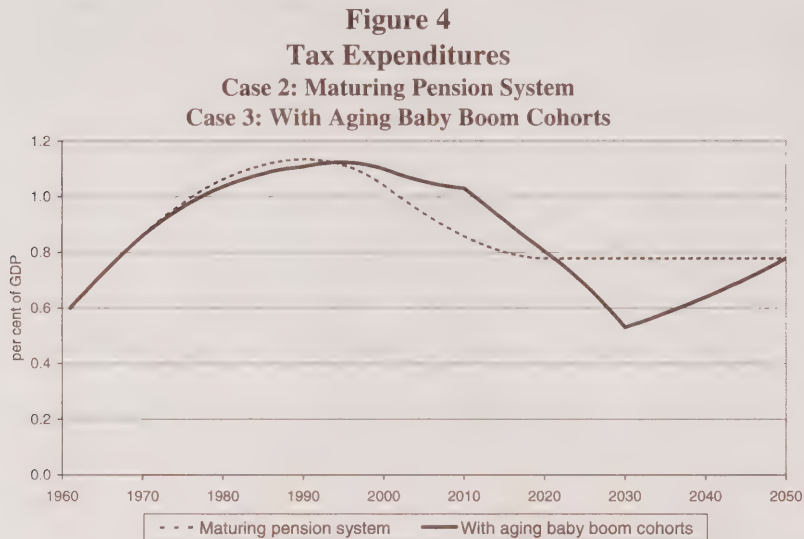
Aging of the Baby Boom Cohorts

As seen in Figure 3, the numbers of births in Canada during the 20 years from 1946 to the mid-1960s were 25% to 45% higher than a trend-line connecting the numbers in adjacent periods.

Figure 3
Number of Births in Canada



To investigate the effects of such a population bulge on pension flows and the tax expenditure, we modified the “Maturing Pension System” model, simply increasing by 35% the level of contributions for the cohorts born between 1946 and 1965. These baby boomers entered the model by reaching age 25 between 1971 and 1990; they reach age 65 between 2011 and 2030, and by 2050 they have disappeared from the model. Since the pension benefits of each single-year age cohort are calculated so as to exactly exhaust the savings it has accumulated at age 64, the higher contributions of the baby boomers translate into higher asset and benefit levels as the baby boomers reach retirement age. The results are shown in Figures 4 and 5.



The tax expenditure for the baby boom case rises above that of the mature-system case to a peak in 2010 and then declines sharply to reach a minimum value at 2030, the only year in which baby boomers make up 100% of the retired population. After 2030 *TE* rises again, reaching its steady state level in 2050.

Comparing Figures 2 and 5, we see that asset and benefit levels are slightly lower as percentages of GDP up to 2010 than with no population bulge. After that point they rise to higher levels. This is because the first effect of the high-population cohorts is to raise the aggregate levels of earnings, GDP and contributions. Asset and benefit levels increase only with a lag. It is also worth noting that the kinks in the *TE* and benefits lines in Figures 4 and 5 result from the simplifying assumption that benefits commence abruptly at age 65 for everyone in the population. This assumption is relaxed in the projections of Section 4.

In summary, these simple models of the tax expenditure and the retirement saving process tell us that both a maturing pension system and the aging of the baby boom generation can create substantial declines in the tax expenditure level. However, so long as the economy continues to grow in nominal terms, they should not be sufficient to reduce the tax expenditure to zero or below.

3. DEVELOPMENT OF THE PROJECTIONS

In this section, we outline the data, assumptions and methods employed in our projections of the cash-flow tax expenditure on saving in RPPs and RRSPs for the period 2001 to 2041. The results are presented in Section 4.

The projected tax expenditures are for savings in RPPs and RRSPs together. Projecting tax expenditures separately for the two types of plans would provide misleading results since individuals frequently transfer RPP assets to RRSPs at retirement or when changing jobs before retirement.

The projections follow the simpler models of Section 2 in the key respect that the RPP/RRSP benefits received by each single-year age cohort are exactly determined by the cohort's contributions and the investment income earned on them. Second, while contribution rates (contributions as a percentage of earnings) vary with age, the age-specific contribution rates are assumed to remain constant throughout the projection period. This assumption is maintained as well for benefits received by those under age 65. It is the level of benefits received by those age 65 and over that are determined by the flows of contributions and investment income. The following specific components of the projection are elaborated in the balance of this section:

- values of economic parameters – the rate of inflation, the real growth rate of wages and the real rate of return on RPP/RRSP assets;
- a projection of the population by single years of age for each year to 2041;

- the form in which benefits are paid out over the life of each asset holder;
- base-year (2001) levels of earnings, contributions, assets, benefits and marginal tax rates on the income flows by single years of age; and
- projected levels of earnings, GDP, savings flows and marginal tax rates.

Economic Parameters

The projections depend on key economic parameters, each of which is subject to a considerable degree of possible variation over time. For the first projection, or “reference scenario,” we employ the following parameter values:

Table 1
Key Economic Parameters

	Real	Nominal⁸
	(% per annum)	
Inflation rate	n/a	2.00
Wage growth	1.00	3.02
Return on investment	3.50	5.57

As a comparison, in his most recent long-run projection of Canada Pension Plan (CPP) costs, the Chief Actuary chose the following parameters for the long run: inflation, 3.00%, real growth in the average wage, 1.10%, and real rate of return on investment, 4.10%.⁹ A higher real rate of return may be expected on CPP assets than on RPP/RRSP assets because of the greater diversification opportunities and lower administration costs available to a single, very large fund.

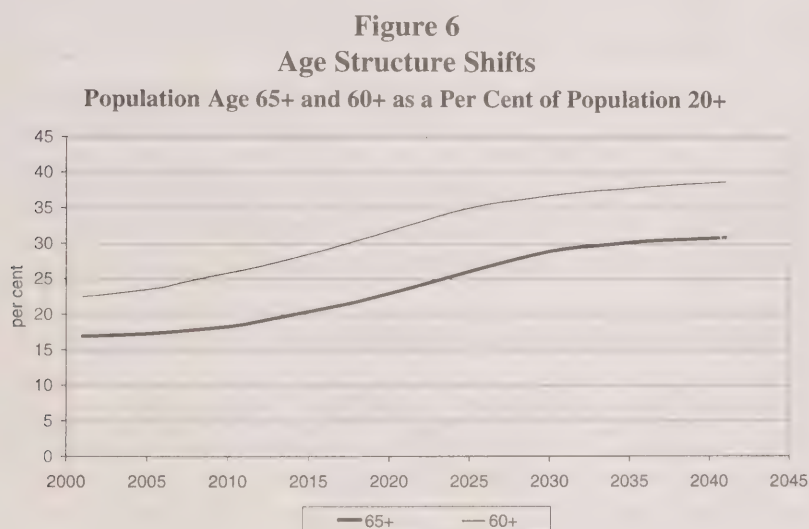
⁸ The nominal wage growth rate = $1.01 \times 1.02 - 1$; the nominal rate of return on investment = $1.035 \times 1.02 - 1$.

⁹ Chief Actuary, Office of the Superintendent of Financial Institutions, *Actuarial Report (18th) on the Canada Pension Plan as at 31 December 2000*, December 10, 2001. These parameters apply for years beginning in 2015. For the years 2001–2014, the assumed rates are variable, averaging 2.4% for inflation, 0.7% for real wage growth and 4.4% for the real rate of return on investment.

Population Projection

The population projection, from 2001 to 2041 by single years of age, is Statistics Canada's "medium" growth scenario extended from 2026 to 2041 under the assumption that fertility, mortality and migration rates remain constant at their 2026 levels (fertility: 1.48 births per woman; life expectancies at birth: 80.0 years for males and 84.0 years for females; immigration: 250,000 persons per year).¹⁰ It is the projection used by Jackson and Matier.¹¹

Figure 6 illustrates the age structure shifts embodied in the projection. It shows the populations age 65+ ("seniors") and 60+ as percentages of the "adult" population age 20+. The proportion of seniors in the adult population begins to rise quickly after 2010. For obvious reasons, the corresponding increase in the proportion of adults age 60+ starts five years earlier. Over the period, seniors' share of the adult population increases by 83% and the share of the 60+ population by 72%. These populations increase even more strikingly—by about 120%—in relation to the "working age" populations (20–64 and 20–59). In the context of the tax expenditure projections, the growth of the age 60+ population is the more important trend since by age 60 benefit payments out of RPPs and RRSPs substantially exceed contributions to them.



¹⁰ Statistics Canada, *Population Projections for Canada, the Provinces and Territories*, March 2001, Catalogue No. 91-520.

¹¹ Harriet Jackson and Chris Matier, op. cit.

Form of Benefit Payouts

Modelling the payout of RPP/RRSP benefits involves several considerations:

- the age of commencement of benefits;
- their pattern over time (level, increasing or decreasing); and
- their duration, taking into account declining survival rates at higher ages.

Each of these factors can affect the tax expenditure level. In general, the later that benefits commence, the more back-loaded they are through inflation adjustments, other ad hoc increases and payments at death, and the longer their duration, the greater will be the degree of tax deferral and the level of *TE*. For example, in the steady state case of Section 2, shortening the benefit payout period by five years to age 79 would reduce the value of *TE* from 0.78% to 0.71% of GDP. For a given level of contributions, shortening the payout period reduces both investment income and benefits, but the reduction in investment income is greater than the reduction in benefits.

Based on an analysis of current payout patterns outlined in Appendix B, the benefit payouts in the projections are determined in the following manner:

- for each age under 65, the level of benefits is constant as a percentage of earnings throughout the projection period;
- benefits paid out at ages 65+ are determined so that, for each age cohort, they exactly exhaust the cohort's assets at age 64 plus post-age-64 contributions; and
- benefits from age 65 are paid out in the form of a 20-year term-certain annuity ending at age 84 and subject to indexing at a rate of the Consumer Price Index (CPI) less 1% (which implies 1% indexing in the reference scenario).

Base-Year Values for Earnings, Savings Flows and Marginal Tax Rates

We obtained aggregate levels of earnings and RPP/RRSP contributions and benefits by single years of age from the T1 microdata file for taxation year 2000 and then adjusted them in certain ways to produce estimates for base year 2001.¹² For each of the variables, we allocated the amounts reported by tax filers under age 20 to those age 20–24 and the amounts reported by those age 85+ to those age 65–84. The allocations were made in proportion to the existing amounts in the 20–24 and 65–84 age groups. These minor adjustments ensured that the total reported levels of earnings, contributions and benefits were captured in the projection model.

¹² All the statistics presented in this paper on the distribution of benefits and contributions across tax filers are taken from T1 files created by the Canada Customs and Revenue Agency. These annual files are stratified samples of tax filers. The latest available file is for the 2000 taxation year.

Earnings include several items identified on the T1 file: employment income, commissions from employment, other employment income, net business income, net professional income, net commission income, net farming income and net fishing income. For 2000, 16.1 million tax filers reported total earnings of \$504.7 billion. To obtain earnings aggregates by age for 2001, we adjusted the 2000 levels by the factor 1.045. This is the 2001-to-2000 ratio of the National Accounts totals of wages and salaries plus unincorporated business income.

RPP/RRSP contributions include employer and employee RPP contributions and RRSP contributions. (No data is available on employer contributions to deferred profit-sharing plans.) Employee RPP contributions totalling \$6,722 million were reported on the T1 file. To account for employer contributions not reported on the T1 file, we inflated the contributions at each age by the ratio \$19,362/\$6,722 to bring them to the Statistics Canada estimate of total RPP contributions for 2000.¹³ RRSP contributions totalling \$28,212 million on the T1 file were added to the RPP contributions. Next, we divided the 2000 contributions by the corresponding earnings levels to calculate contribution rates by age. These vary from 1.3% at age 20 to over 11% for the 50–64 age group and to over 15% for those with earnings at age 66. Applying the contribution rates to the 2001 earnings levels produced estimates of contributions by age for that year.

RPP/RRSP benefits on the T1 file include RPP income, RRSP annuity income, other RRSP withdrawals and withdrawals from registered retirement income funds (RRIFs). They totalled \$48,926 million in 2000. As noted in the previous section, we treated benefit payments up to age 64 in a parallel manner to contributions, calculating benefit rates by dividing benefits by earnings for 2000 and applying these rates to projected earnings levels to produce benefit levels by age for 2001. For benefits received by seniors in 2001, we had two possible information bases. We could use an annuity formula to impute benefit levels from RPP/RRSP asset holdings by age from the 1999 Survey of Financial Security (SFS) or we could take pension income levels directly from the 2000 T1 file.¹⁴ We chose the T1 data, as it is one year more recent and based on a large sample of tax returns rather than a smaller sample of household interviews. To obtain 2001 benefit levels, we updated the 2000 levels by the factor 1.084, the average rate of increase in aggregate RPP/RRSP benefits over the period 1997–2000.

¹³ Statistics Canada, *Canada's Retirement Income Program: A Statistical Overview (1990–2000)*, Catalogue No. 74-507.

¹⁴ Statistics Canada, *The Assets and Debts of Canadians: An Overview of the Results of the Survey of Financial Security*, Catalogue No. 13-595, and *The Assets and Debts of Canadians: Focus on Private Pension Savings*, Catalogue No. 13-596.

RPP/RRSP assets do not show up in taxation data but are reported in aggregate by Statistics Canada on an annual basis. In addition, the SFS provided estimates of the distribution of these assets across households in 1999. There are some inconsistencies between different Statistics Canada estimates. For example, the 1999 estimate of RPP assets in the SFS was \$604 billion while the current estimate for that year is \$781 billion.¹⁵ In contrast, the annual estimates of RRSP assets do not include assets held in self-administered plans or RRIFs, so the 1999 estimate of \$268 billion is considerably lower than the estimate of \$408 billion in the SFS.

Another difficulty in arriving at reasonable base-year asset levels is the behaviour of stock markets since 2000, the last year for which we have estimates. Using Statistics Canada's annual data together with an adjustment of RRSP assets by the factor 408/268 to include self-administered plans and RRIFs, we have aggregate estimates of \$1,189 billion for 1999 and \$1,250 billion for 2000. However, with the market downturn these estimates are likely to be too high as a basis for projecting future retirement benefits.

Since the tax expenditure formula for year t includes assets at the end of year $t-1$, 2000 is the base year for assets in our projection. In response to the data difficulties noted above, we have taken the following approach to estimating these assets. For ages 64+, we have calculated asset levels directly from the 2001 benefit levels given the assumption that the benefits are paid out in the form of a term-certain annuity to age 84 with indexing at a rate of CPI growth less 1%.¹⁶ For ages up to 63, the assets are based on those reported in the SFS for 1999. Statistics Canada provided us with a distribution of RPP/RRSP assets by single years of age for ages 25–74. We smoothed this profile by taking a three-age moving average of the single-year estimates and we extrapolated it by allocating the assets held by those under 25 to the 20–24-year-olds. Then we inflated the levels by a factor of 1.1 to obtain estimates for 2000. The resulting asset total of \$1,065 billion for 2000 is purposefully lower than the Statistics Canada estimate to allow in an ad hoc manner for the asset declines that have occurred in 2001 and 2002.

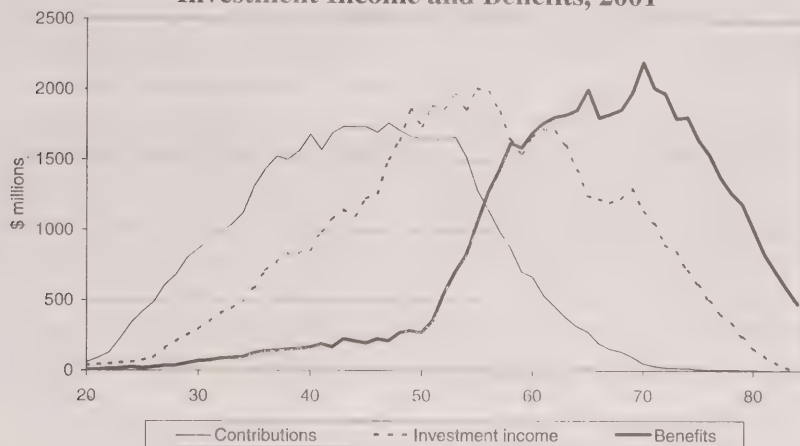
The resulting age profiles of contributions, investment income (equal to assets times the assumed interest rate of 5.57%) and benefits are presented in Figure 7. Two points are of particular interest. First, even though the median retirement age is currently about 62, RPP/RRSP benefits begin to exceed contributions as early as age 56. This suggests that the effects of the aging of the baby boom cohorts on the TE level should be expected to

¹⁵ Statistics Canada, *Canada's Retirement Income Program: A Statistical Overview*, Catalogue No. 74-507. Statistics Canada has recently revised its RPP asset estimates to move from a book value to market value basis for trusted funds.

¹⁶ With B_x representing benefits received at age x and $a = (1 + \Delta\text{CPI} - .01)/(1+i)$, the formula for the asset held at age x is $A_x = B_x \frac{(1-a^{84-x})}{(1+i)(1-a)}$.

start showing up very soon rather than only in 2011, when the first baby boomers reach age 65. Second, and more important, we see that older cohorts dominated by beneficiaries rather than contributors still account for a substantial proportion of total assets and investment income. For example, those age 56 and over hold 48% of the assets. This implies that the foregone tax on investment income should remain high as the baby boom moves into retirement, thus limiting the reduction in the tax expenditure caused by the demographic shift.

Figure 7
Age Profile of Total Contributions,
Investment Income and Benefits, 2001



The **marginal tax rates (MTRs)** on contributions, investment income and benefits are the final component of the *TE* estimate for the base year. We have estimated these for single-year age cohorts, using microdata on contributions and benefits. Since we are projecting federal tax expenditures we consider only federal tax rates. Since tax reductions have been legislated that are not yet in effect, we use the 2004 tax structure as the basis for all the rates.

In describing further how the rates are calculated, it is necessary to be quite precise about their nature.

First, they are “average” marginal tax rates in two separate ways. The rate on contributions for an age cohort, for example, is an average of that for all contributors in the cohort. In addition, the rate for each contributor is an average of that for each dollar contributed. For example, in 2004 the federal MTR rises from 22% to 26% at an income threshold of \$70,000. For a contributor with income of \$75,000 and an RRSP contribution of \$10,000, the MTR on the first dollar of contribution is 26% but the average MTR on the total contribution is 24% (\$5,000 at 26% and \$5,000 at 22%).

Second, the MTR on investment income is determined in conjunction with the MTRs on contributions and benefits, and the effects differ in the two cases. For contributors, elimination of the tax preference means loss of the deduction on the contribution *plus* an income inclusion of some amount of formerly sheltered investment income.

In the case of the contributor earning \$75,000, for example, this means an increase in taxable income from \$65,000 to \$75,000 due to the elimination of the RRSP contribution deduction plus a further increase to, say, \$80,000 on account of the investment income. Computed in this manner, the average MTR on the investment income is likely to be as high or higher than that on contributions. (In the example, it is 26% as compared to 24% for the contribution.) For beneficiaries, on the other hand, the inclusion of investment income offsets, fully or partly, the tax reduction from excluding RPP/RRSP benefits from taxable income. Consider an individual with reported income of \$35,000 of which \$15,000 is RPP income, and with sheltered RPP/RRSP investment income of \$10,000. Eliminating the tax on benefits reduces this individual's taxable income to \$20,000, but taxing the sheltered investment income raises it back to \$30,000. Based on the tax brackets of 2004, the average MTR on both changes is 16%. In general, the average MTR on investment income for beneficiaries will be very similar to that on the benefits.

We calculate for each age cohort average MTRs on investment income as a weighted average of MTRs for contributors and beneficiaries. The weights are the total levels of contributions and benefits for the age cohort. For contributors, the MTR is based on an estimate of the average RPP/RRSP investment income of contributors in the cohort. For beneficiaries, we assume the same MTR for investment income as for benefits.

Overall MTRs for contributions, investment income and benefits are calculated as weighted averages of the MTRs for each age cohort. For base year 2001, Table 2 presents the results.

Table 2
Marginal Tax Rates on Savings Flows for 2001

		(%)
Contributions		21.4
Investment income ¹		
Contributors	23.7	
Beneficiaries	17.6	
Total		20.6
Benefits		17.6

¹MTRs for 2000.

Tax expenditure for 2001. Based on the *TE* formula from Section 2, the projected 2001 tax expenditure is:

$$\begin{aligned} TE &= (0.214)(\$49,714 \text{ million}) + (0.206)(\$59,334 \text{ million}) - (0.176)(\$52,207 \text{ million}) \\ &= \$13,677 \text{ million.}^{17} \end{aligned}$$

This tax expenditure amounts to 1.25% of Canada's GDP for 2001 (estimated at \$1,092 billion).

Projections to 2041

Projected *TE* values are based on projections of earnings, contributions, benefits, assets and MTRs over the period.

To project aggregate **earnings** by age, we first obtained per capita earnings levels for 2001 by dividing the 2001 aggregates by the population in each age cohort. Next, we projected the per capita earnings levels to future years by the assumed rate of wage growth (3.02% in the reference scenario). Finally, we obtained aggregate earnings by inflating the projected per capita wage levels by the projected population at each age. As we assume that total earnings represent a constant fraction of GDP throughout the period, projected total earnings define projected GDP levels.

The projection of **contributions** is based on the assumption that age-specific contribution rates remain unchanged at their 2000 values. Thus, aggregate contribution levels by age are obtained simply by applying the contribution rates to the projected levels of earnings at each age.

As noted above, the methods used in projecting **benefits** are different for those under age 65 than for seniors. For those age 20–64, benefits are assumed constant as a percentage of earnings for each age cohort. As in the case of contributions, aggregate benefits by age are obtained by applying the benefit rates to the projected earnings levels. For seniors, we calculated the aggregate amounts of benefits received at each age and for each year from the expression that relates the initial benefit amount of an indexed term-certain annuity to the asset available to fund it.¹⁸ It should be noted that this procedure results in benefits for a particular age cohort that increase over time at a slightly higher rate than CPI growth less 1%. The reason is that the assets held by seniors are modified each year not only by the payout of benefits but by the modest levels of contributions they continue to make.

¹⁷ Due to differing assumptions concerning asset levels and MTRs (e.g., we assume that tax reductions phased in to 2004 are fully implemented), this estimate is lower than the corresponding estimate of \$16,165 million in the annual *TE* estimates presented in Part 1 of this *Tax Expenditures and Evaluations* report.

¹⁸ For assets A_{x-1} held at the end of the previous year and with the other variables defined as in footnote 16,

the formula is
$$B_x = A_{x-1} \frac{(1+i)(1-a)}{(1-a^{85-x})}.$$

The level of **assets** held at a given age, x , at the end of any year, t , in the projection is obtained directly from the simple accounting expression

$$A_{x,t} = (1+i)A_{x-1,t-1} + C_{x,t} - B_{x,t} \quad (6)$$

The **average MTRs** by age for contributions, investment income and benefits are assumed constant over the projection period. With changes in the age distribution of these savings flows, the overall MTRs can vary from year to year. However, in practice the variation is slight. The MTR on contributions drops from 21.4% to 21.3% and then regains its initial value; that on benefits declines from 17.6% to 17.4% and then rises to 17.7%; and that on investment income declines from 20.6% to 20.2% over the period.

4. RESULTS

In this section, we present the tax expenditure projection for the reference scenario, based on the assumptions and methods outlined above. We also explore how the projection is sensitive to the economic parameters by making alternative assumptions regarding their values over time.

Reference Scenario

In the previous section, the *TE* for RPP/RRSP saving was estimated at 1.25% of GDP for 2001. Our reference scenario projection provided in Figure 8 suggests that the *TE* will decline as Canada's population ages, but only modestly, reaching 1.11% of GDP by 2041.

In 2001 dollars, a *TE* decline of 0.14% of GDP amounts to about \$1.5 billion, far smaller than the declines of over \$30 billion in the projections cited earlier in this paper.

Figure 8
Tax Expenditure Projection,
Reference Scenario, 2001–2041

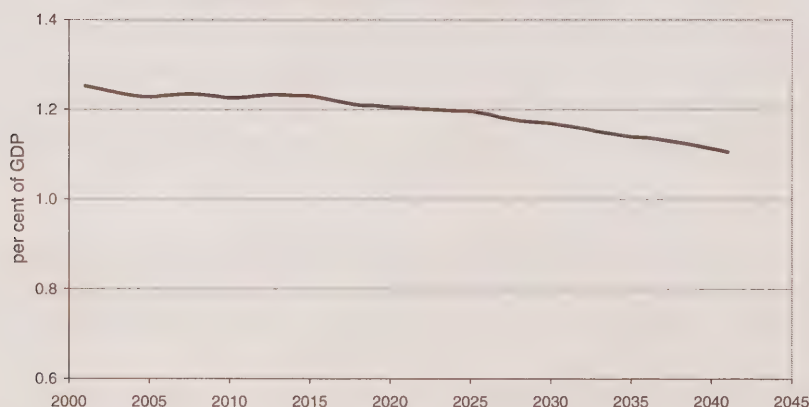
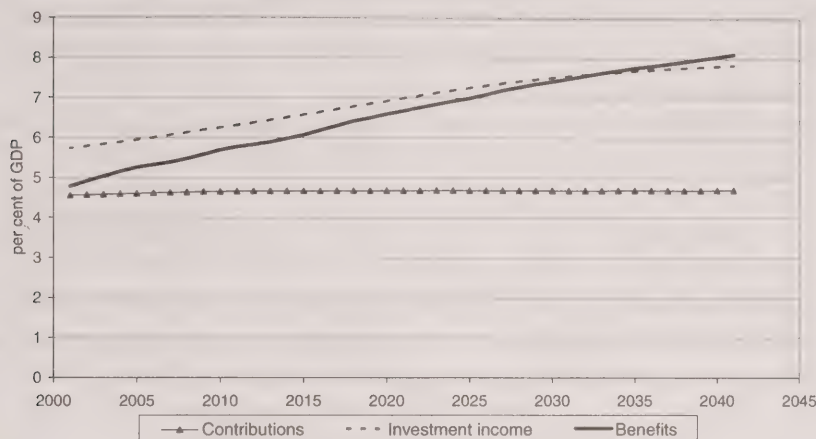


Figure 9 shows that, with contributions maintaining a roughly constant share of GDP, it is the fact that benefits rise more rapidly than investment income that produces the *TE* decline. On the other hand, as we saw in the more stylized aging baby boom model of Section 2, the drop in the *TE* is limited by the continuing growth of asset levels that accompanies the aging of the baby boom cohorts.

Figure 9
Tax Expenditure Components
in the Reference Scenario



Why does this projection not exhibit the same rapid decline in *TE* as seen in the aging baby boom model in Figure 4? One possible answer is that the Canadian pension system is less mature than the model of Section 2 in which age-specific contribution rates were assumed constant from 1961 on. Figures 10 and 11 provide some evidence of this.

Figure 10
RPP/RRSP
Contribution and Benefit Rates

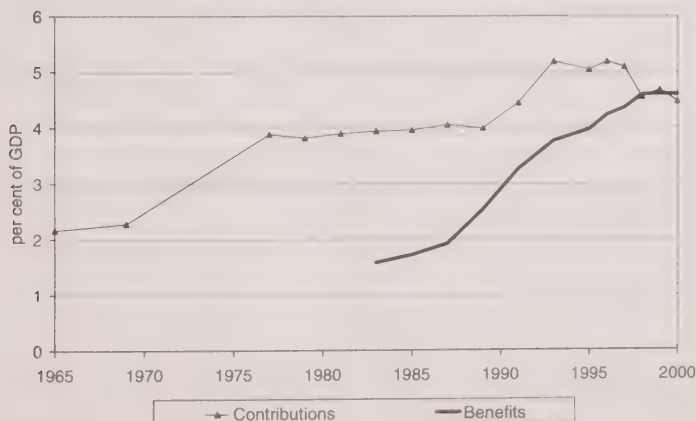
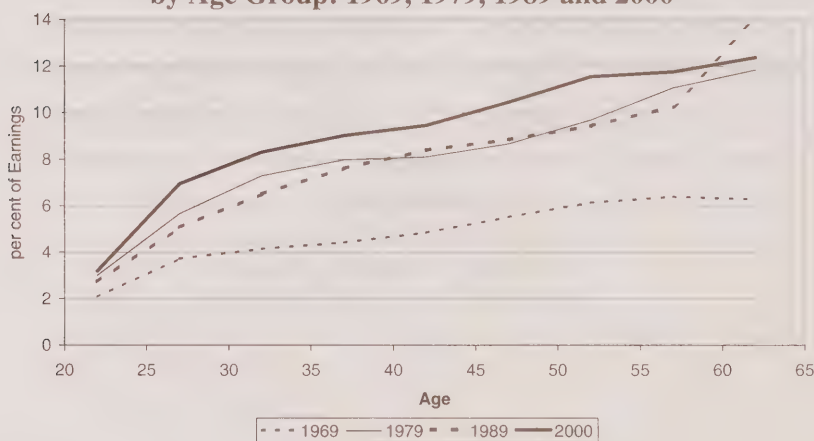


Figure 10 shows how the RPP/RRSP contribution rate (total contributions as a percentage of GDP) has evolved since 1965. It also shows the increase in benefits over the latter part of the period.¹⁹ The contribution rate rose substantially in the 1970s and again in the 1990s. The modest decline in recent years has not been fully studied, but its sources could include: (1) a decline in public sector employment in the early and mid-1990s; (2) rapid employment growth after 1993 concentrated in sectors (small business, high technology) and demographic groups (youth) with relatively low pension coverage and savings rates; (3) a shift in saving from RRSPs to registered education savings plans with the introduction of the Canada Education Savings Grant in 1998; and (4) the reduction and/or freezing of the dollar limits on RPP benefits and RPP/RRSP contributions in 1996 and subsequent years.

This contribution rate history will overstate the change in contribution behaviour to the extent that it is affected by the movement of the baby boom cohorts into high-saving age groups. To correct for this factor, Figure 11 shows the age profile of contribution rates, expressed here as percentages of reported earnings, for the years 1969, 1979, 1989 and 2000. These years were chosen both to span the period and because they were all years of relatively good economic conditions.²⁰ From the figure, it is evident that the contribution increases in the 1970s and the 1990s were not merely the result of the movement of the baby boom cohorts into high-saving age groups.

Figure 11
RPP/RRSP Contribution Rates
by Age Group: 1969, 1979, 1989 and 2000



¹⁹ The data on RPP contributions come from Statistics Canada, *Pension Plans in Canada*, Catalogue No. 74-401, various years. RRSP contribution levels and RPP/RRSP/RRIF benefit levels are taken from the Canada Customs and Revenue Agency (CCRA), *Taxation Statistics*, various years.

²⁰ The data are for five-year age groups and were taken from Table 4 of CCRA, *Taxation Statistics*. The RPP contribution levels used in calculating the RPP/RRSP contribution rates were obtained by applying the ratio of total RPP contributions (from Statistics Canada, *Pension Plans in Canada*) to total employee contributions (*Taxation Statistics*) to the age-group employee contributions.

An increase in the contribution rate up to the 1990s would delay the maturation of the pension system and raise *TE* levels in the projection period. However, it appears inadequate to fully explain the relatively slow decline in the *TE* between 2011 and 2031. Two other factors likely contributed. First, while in the stylized models of Section 2 the receipt of RPP/RRSP income is limited to the 65+ age group, the projection model recognizes that it is actually spread out over the life cycle with over 43% of benefits going to those under 65. Second, while the baby boom model of Section 2 assumes no demographic variation apart from the aging of those cohorts, there has been in fact a baby boom echo producing a small second peak in births around 1990 (as seen in Figure 3). Those echo cohorts will enter the labour force around 2010 and their high-saving years around 2030. Their effect is seen in a slight increase in the aggregate contribution rate, from 4.55% to 4.70% of GDP, over the projection period. Taken together, these three factors should account for the gradual pace of decline in the projected tax expenditure after 2010.

Sensitivity to Assumptions

Any long-run economic projection depends on the parameters assumed for factors such as real wage growth, inflation and the real return on investment. Our reference scenario employs plausible parameter values, which are quite similar (very similar real wage growth, somewhat lower inflation and a slightly lower real interest rate) to those used by the Chief Actuary in projecting CPP costs. However, other economic scenarios are quite possible so it is of interest to see how changes in key parameters would affect the *TE* projection. The parameter changes considered here include changes in the rate of real wage growth, the rate of inflation, and the real rate of return on investment. Also, in Appendix C, we examine the effect of departing from the definition used in the annual tax expenditure estimates by modifying the estimated marginal tax rates to take into account reductions in Guaranteed Income Supplement benefits due to the receipt of RPP/RRSP benefits or investment income on RPP/RRSP assets.

Figure 12 provides *TE* projections where, after a phase-in period, the **rate of growth of real wages** is assumed to be 2% or 0% per annum rather than the reference scenario value of 1% per annum. Over the phase-in period, the growth rate increases or decreases by 0.1 percentage point per year, reaching its final value by 2011.

The effects on the *TE* values are quite modest, with maximum changes of about 0.07% of GDP during the period. Another finding of interest is that the short- and medium-term effects of a real wage change are opposite to the long-term effects. Equation (4) of Section 2 showed that, in a steady state case, *TE* is positively related to the growth rate of earnings and GDP. Here, though, there is a 33-year transition before that result becomes evident. The reason is that, in the faster wage growth (2%) case, for example, the constant initial value of assets produces levels of investment income and benefits that are lower (as a percentage of GDP) than in the reference scenario, and the initial impact is significantly greater for investment income than for benefits. At 2021 the level of investment income is lower by 1.02% of GDP while the level of benefits is lower by 0.73%. For the lower wage growth case, the converse is true.

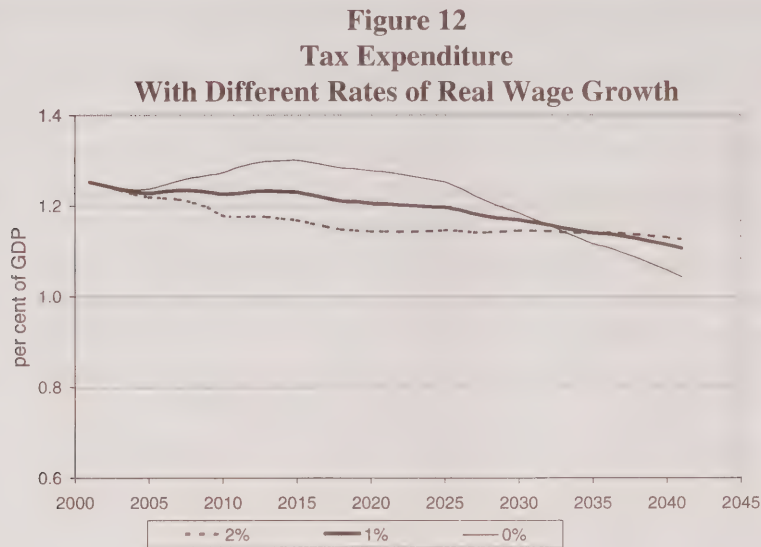
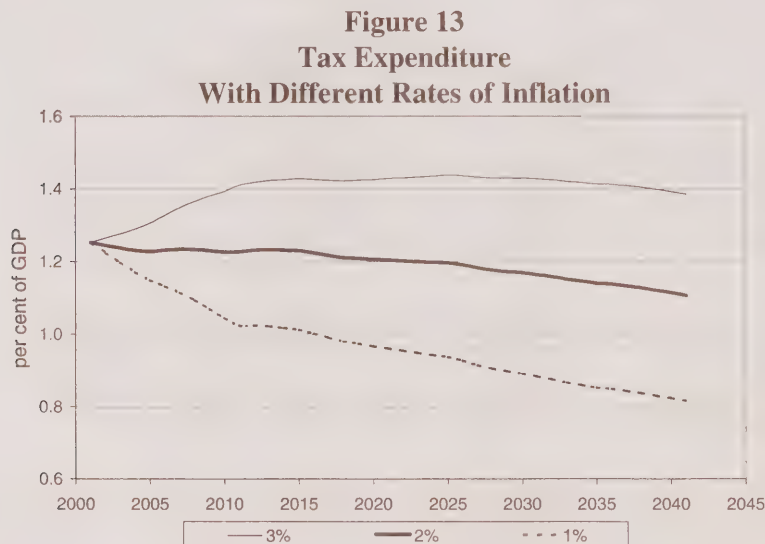


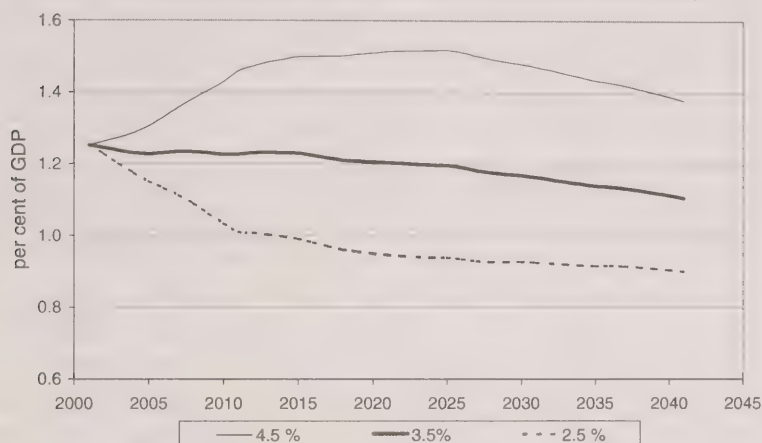
Figure 13 shows the effect of alternative assumptions about the **inflation rate**—3% (as assumed by the Chief Actuary) and 1% per annum as compared to the reference scenario assumption of 2%. Again, the alternative rates are phased in over the period to 2011.



Here the effects on the *TE* levels are simpler and stronger than for changes in real wage growth. The main reason for this is that higher inflation, for example, is reflected in a correspondingly higher nominal rate of return. This produces an immediate and proportional increase in the level of investment income, a positive component of *TE*. This direct effect on *TE* is essentially the only effect since additional inflation otherwise has the same proportional effect on the levels of earnings, GDP, contributions, assets and benefits.

The effect of an increase in the **real rate of return on investment** is shown in Figure 14, in which scenarios with real rates of return of 4.5% and 2.5% per annum, phased in by 2011, are compared with the reference scenario (3.5%). The results are similar to that of the inflation case in that a change in the real rate of return on investment directly affects the *TE* level through its investment income component. However, because the real return increase produces a more direct and immediate increase in asset levels than in benefit levels, it results in a further increase in the *TE* level that is reversed after a period of time as the asset increases are translated into faster benefit growth.

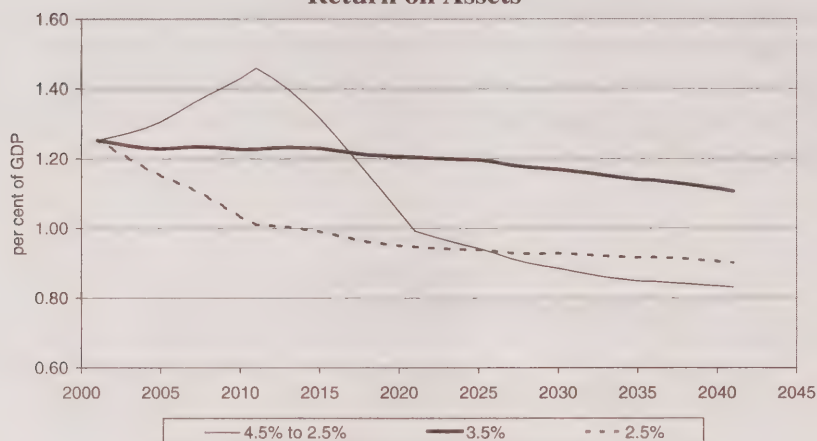
Figure 14
Tax Expenditure
With Different Real Rates of Return on Assets



A related scenario of interest involves a **drop in the real rate of return** during the projection period. General equilibrium, overlapping generations models predict such a result in response to a rise in the capital-labour ratio as the population ages and growth in the labour force slows.²¹ Simulating such a change as a rise in the real rate to 4.5% by 2011 and then a faster drop in the rate from 4.5% to 2.5% per annum by 2021 yields a time path of *TE* that is roughly approximated by a drop from the 4.5% track to the 2.5% one in Figure 15. By 2041, the *TE* value in the declining yield case is 0.83% of GDP, somewhat lower than the value of 0.90% in the 2.5% yield case.

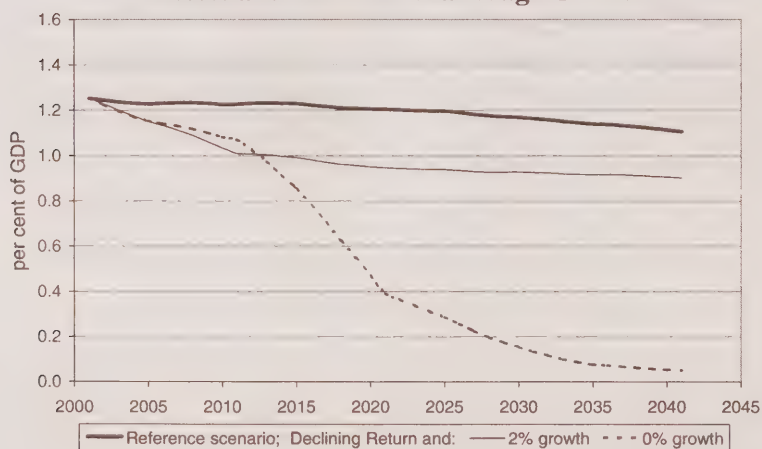
²¹ See, for example, Ketil Hviding and Marcel Mérette, *Macroeconomic Effects of Pension Reform in the Context of Aging: OLG Simulations for Seven OECD Countries*, OECD Working Paper No. 201, June 1998 and William Scarth, "Population Aging, Productivity and Living Standards," Institute for Research on Public Policy and the Centre for the Study of Living Standards, *The Review of Economic Performance and Social Progress: Towards a Social Understanding of Productivity*, Vol. 2, December 2002.

Figure 15
Tax Expenditure with a Decline in the Real Rate of
Return on Assets



Finally, it is of interest to explore economic conditions that could result in a drop to quite low levels of *TE* as the population ages. Figure 16 combines the declining real rate of return scenario (4.5% in 2011 to 2.5% in 2021) with declines in inflation and real wage growth. In the first case, inflation declines from 2% to 1% by 2011, yielding nominal wage and GDP-per-worker growth of about 2%. In the second, both the inflation rate and the real wage growth rate decline to zero by 2011, producing zero growth in nominal wage levels and GDP per worker. Between 2011 and 2041, the federal *TE* drops from 1.25% of GDP to 0.51% in the 2% growth case and to 0.05% in the zero-growth case.

Figure 16
Tax Expenditure With a Declining Return on
Assets and Low Nominal Wage Growth



Even with considerable variation in economic parameters from those in the reference scenario, these projections do not exhibit declines in the tax expenditure to substantial negative values such as those projected in the studies cited in footnotes 2 and 3. What differences in methodology or assumptions could explain the differing results? A full accounting of the differences cannot be made here, but some points are worth mentioning. First, the projections in this section reflect the fact that individuals under age 65 receive about 43% of total RPP/RRSP benefits. This reduces the estimated effect of population aging on the aggregate level of benefits and thus on the *TE* value as compared to models in which seniors receive all benefits. Second, the projections here assume conservative long-run real rates of return on investment (3.5% in the reference scenario and up to 4.5% in alternative cases) while the cited studies appear to assume rates of 7% or higher at least in the early years of the projection period. High real rates of return tend to raise future benefits in relation to contributions and so produce a decline in *TE* values. Third, the current projections generally assume positive inflation while the cited studies ignore inflation. In addition, one of the studies assumes zero real wage growth. Again, these differences result in lower growth in the benefit-to-GDP ratio here than in the other studies. Finally, as noted earlier, one of the other projections is based on a modified definition of the tax expenditure that is lower and more sensitive to population aging than the conventionally-defined *TE*.

5. CONCLUSION

In the reference scenario, we estimate a decline in the federal tax expenditure on RPP/RRSP saving of 0.14% of GDP or \$1.5 billion in 2001 dollars. A sharp and sustained decline in the real interest rate would increase this *TE* drop, especially if it were accompanied by a significant decline in real wage growth and inflation. On the other hand, increases in the rates of real wage growth, inflation and the return on investment over the period would tend to offset the projected *TE* decline. This range of scenarios demonstrates the high degree of uncertainty that must be attached to long-run projections. At the same time, they suggest that it would not be prudent for governments to count on receiving very large fiscal gains as a result of a decline in the tax expenditure on RPP/RRSP saving.

Finally, we would note that changes in the tax expenditure for retirement saving are only one aspect of the effect of population aging on income tax revenues—and probably not the dominant one. In particular, even though governments recoup deferred taxes as seniors withdraw funds from RPPs and RRSPs, the more important fact is that seniors generally have lower incomes than working-age taxpayers and so pay lower taxes. As a result, an increasing population share of seniors should tend to depress income tax revenues.

APPENDICES

A. Rate of Return on RPP/RRSP Saving

The value to savers of the tax preference on RRSP (and RPP) saving is sometimes not well understood. Some suggest that because RRSP proceeds are eventually taxed, the double taxation of savings inherent in an income tax system is reduced but not eliminated. Others conclude that the attractiveness of RRSP saving depends on whether the tax refund from the contribution deduction is saved or spent. These conclusions are based on a misunderstanding of what saving is and a failure to take the value of the contribution deduction fully into account.

Saving is the deferral of consumption from one period of time to another. The rate of return on saving is the rate at which consumption can be exchanged between periods. In the case of an RRSP contribution of \$1,000 by an individual facing a marginal tax rate of 40%, for example, the net cost of the contribution and the net reduction in current consumption is \$600. This is the amount of saving and thus the amount on which the rate of return calculation should be based. (Analysts sometimes calculate a rate of return based on a \$1,000 RRSP contribution together with investment of the \$400 tax refund outside an RRSP. By analyzing a mix of RRSP and non-RRSP saving, this procedure cannot correctly measure the return to RRSP saving.)

With a one-year investment and a pre-tax rate of return of 10%, the \$1,000 RRSP contribution yields pre-tax proceeds of \$1,100. After taxation at 40%, the net proceeds are \$660, providing an after-tax rate of return of \$60 or 10% on the net savings of \$600. As the after-tax and pre-tax rates of return are the same, we can conclude that the RRSP has the same effect as the complete elimination of tax on the investment income earned on monies saved outside an RRSP.¹ This result is demonstrated more formally below along with the effect of tax rates that vary between periods.

To obtain the after-tax rate of return on RRSP saving, we need to determine the rate at which current consumption can be exchanged for future consumption using an RRSP. Consider consumption levels in two periods, C_0 and C_N , that depend on income levels, Y_0 and Y_N , marginal tax rates, m_0 and m_N , tax parameters, K_0 and K_N , that account for tax credits and the taxation of part of income at tax rates less than m_0 or m_N , the level of the RRSP contribution, R_0 , and the pre-tax nominal rate of return, i , earned on the funds in the RRSP.

¹ This is also the same result as would be obtained through saving in a tax pre-paid savings plan (TPSP). Contributions to a TPSP are not deductible, but investment income earned in the plan and benefits paid out of it are not subject to income tax.

$$C_0 = Y_0 - R_0 - m_0(Y_0 - R_0) + K_0$$

$$C_N = Y_N + R_0(1+i)^N - m_N(Y_N + R_0(1+i)^N) + K_N$$

The effects of an incremental change in the level of the RRSP contribution on C_0 and C_N are

$$\frac{dC_0}{dR_0} = -(1 - m_0)$$

$$\frac{dC_N}{dR_0} = (1 - m_N)(1+i)^N$$

Consequently, the rate at which consumption can be exchanged between the periods by RRSP saving is

$$\left(\frac{dC_N}{dC_0} \right) = \left(\frac{dC_N / dR_0}{dC_0 / dR_0} \right) = - \left(\frac{1 - m_N}{1 - m_0} \right) (1+i)^N$$

To convert this to an annual rate of return on RRSP saving, we ignore the negative sign, take the N^{th} root of the expression and subtract 1.

$$RR = \left(\frac{1 - m_N}{1 - m_0} \right)^{\frac{1}{N}} (1+i) - 1$$

Where there are no income-averaging effects and the RPP/RRSP tax treatment provides a pure tax deferral, we have $m_N = m_0$ and $RR = i$.

Where m_N is lower than m_0 , as will often be the case in saving for retirement, RR will exceed i . The importance of possible income-averaging effects on RR depends on the holding period, N , as well as the tax rates. Consider the case of an individual who faces a top-bracket (federal/provincial) tax rate of 45% before retirement and a lower rate of 30% after retirement. With a pre-tax rate of return of 7%, the after-tax rate of return is 9.6% with a 10-year holding period and 8.3% with a 20-year period, indicating that the income-averaging effects become relatively less important as the holding period increases.

B. Form of Benefit Payouts

In the projections, benefits received at each age up to 64 are assumed constant as a percentage of earnings while benefits received by those age 65+ are assumed to be paid out in the form of a term-certain annuity to age 84 with indexing at a rate of CPI growth less 1%. For each age cohort, the present value of post-age-64 benefits is equal to the sum of assets at age 64 and the present value of post-age-64 contributions. This appendix reviews the information about current benefit patterns on which these assumptions are based.

RPP/RRSP benefit payments are received not only by seniors and retirees. Taxation statistics for 2000 indicate that of \$48.9 billion in total benefit payments, 12.2% went to individuals under age 55, 31.2% to those age 55–64 and 56.6% to those age 65+. Total payments to the 55–64 age group are composed of annuity income, mostly from RPPs but also from matured RRSPs, and discretionary withdrawals from RRSPs and RRIFs. Among both the 55–64 and 65+ age groups, annuity income accounts for 80% of the total. Pensioners age 55–64 have higher pensions on average than 65–69-year-olds. This reflects the payment of bridge benefits, which cease at age 65, as well as other factors.

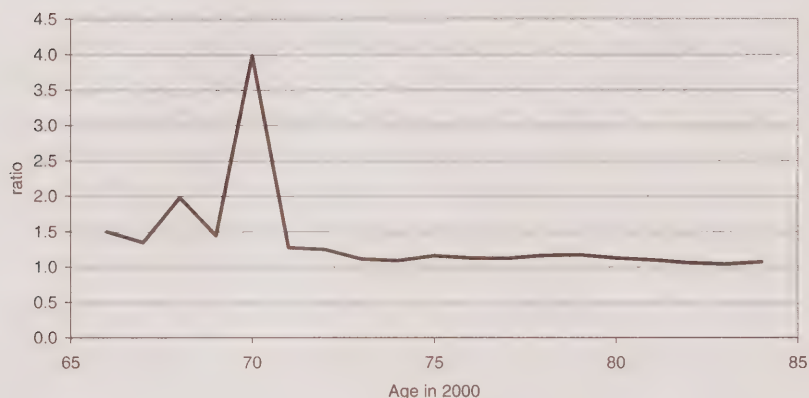
RPP pensions usually begin at retirement but are not required to commence until age 69. RRSPs must be used to purchase annuities or converted to RRIFs by age 69, and RRIF payments must begin by age 70. In 2000, the percentage of tax filers reporting RPP/RRSP income rose from just over 50% at age 65 to over 68% at age 71, indicating that a considerable number of seniors are able to defer receipt of registered plan income for several years after age 65.

The time pattern of benefit payments may be expected to differ for annuity and non-annuity benefits. Annuities generally provide level or indexed payments. About one-half of RPP members belong to plans in which retirement benefits are fully or partially indexed to increases in the CPI. Those in most other defined benefit RPPs have benefits that are subject to ad hoc inflation adjustments. Annuity payments typically cease with the death of the annuitant or a surviving spouse but may also include payments of a guaranteed amount after death when it occurs within a limited period after pension commencement.

For withdrawals from RRSPs and RRIFs, the pattern of payments is likely to be less regular. RRIFs are subject to minimum withdrawal requirements and, where they include funds transferred from RPPs, withdrawal maximums as well. Within these constraints, withdrawals can vary from year to year at the annuitant's discretion. Upon the death of the annuitant, the balance of funds must be withdrawn and included in the annuitant's income unless it is transferred to the RRIF or RRSP of a spouse, minor child or dependent infirm child.

Direct evidence on the time pattern of benefits is presented in Figure B.1. It compares the level of RPP/RRSP benefits in 1999 and 2000 for tax filers reporting such benefits in both years.² For each such filer, the ratio of benefits in 2000 to benefits in 1999 is calculated and the average of these ratios is shown, by age, in the figure.

Figure B.1
Average Ratio of Benefits,
2000/1999, by Age of Recipient



On average, benefit levels tend to show large increases over the age range 65–70 and modest increases after that. The early increases, and the year-to-year jump at age 70 in particular, appear to result from additions to existing pension income coming from RRSP withdrawals and the required conversion of RRSPs to RRIFs. To provide a closer look at the time pattern of benefits, unaffected by RRSP-RRIF conversions, Table B.1 presents the size distribution of the average ratios, R , for the age group 72–80.

While there is considerable dispersion of ratios, we see that 40% of pensioners had level benefits ($R = 1$ exactly) or benefits that increased by up to 2%. The CPI increase in 1999, which typically would be the basis for inflation adjustments in 2000, was 1.7%. A further 12.5% had benefit increases between 2% and 5%, perhaps reflecting ad hoc adjustments of less than annual frequency. In view of this evidence, the projections assume that pension payments are indexed at a rate of CPI growth less 1%. For the reference scenario, with 2% inflation, this means an annual increase of 1%.

² For pension income and other income components, the T1 file contains data on both the current and previous tax years.

Table B.1
Distribution of Ratios (R)
Pension Income 2000/Pension Income 1999

Range of R	Average R	Frequency (%)
< 0.75	0.460	6.3
0.75–1.00	0.949	22.5
1.00	1.000	15.2
1.00–1.02	1.012	24.7
1.02–1.05	1.030	12.5
1.05–1.25	1.115	10.2
> 1.25	3.009	8.6
Total	1.145	100.0

Regarding the duration of benefits, we noted above that about 80% of RPP/RRSP benefits received by seniors are paid in the form of annuities. (Given the growing importance of RRSPs compared to RPPs, this percentage may be expected to decline over time.) Among those who recently reached retirement age (the 65–69 age group), single males received 11% of RPP/RRSP benefits, single females 17% and couples 72%. Thus, the dominant form of payout at the present time is a life annuity with a survivor benefit continuing after the death of the annuitant.³

However, since annuities are subject to varying sets of survival probabilities (male, female, joint and survivor) and since a significant and growing portion of registered plan assets are paid out as RRSP or RRIF withdrawals, it seems appropriate to model the payout of benefits more simply as a term-certain annuity.

To choose the duration of a term-certain annuity, we looked for one that would embody a comparable degree of tax deferral, and *TE* cost, as the stream of expected payments under a representative life annuity with 1% indexing. By a representative annuity, we mean one for which the survival probabilities reflect an 11/17/72 mix of the survival probabilities for single males, single females and couples (given a pension with a 60% survivor benefit).

³ Federal and provincial pension benefits legislation generally requires that, except in the case of joint election by spouses, RPP members with spouses take their benefits in a form that includes a survivor benefit of 60% or more of the base pension.

To compare *TE* costs of different patterns of benefit payout, a convenient measure is:

$$TE \text{ fraction} = 1 - \frac{PV_{TA}}{PV_{NTA}}$$

where PV_{TA} is the present value of the stream of payments discounted at a pre-tax (i.e., tax-assisted) rate of return and PV_{NTA} is the present value of the same payments discounted at an after-tax (non-tax-assisted) rate of return. Example: consider the case of a single payment in 10 years and assume $i = 5.57\%$ and tax rate $m = 0.25$ (in all years) so that the after-tax rate of return, $(1-m)i = 4.1775\%$. Then the *TE* fraction $= 1 - (1.0557^{-10}/1.041775^{-10}) = 1 - (0.582/0.664) = 0.123$. Table B.2 presents the *TE* fractions for several benefit payout forms. In each case the first payments begin at age 65. Except for the term-certain annuity cases, the payments are “expected” payments to age 110—i.e., the potential payment at each age multiplied by the survival probability for that age. In the RRIF cases, there is an expected payment assuming survival to each age plus an expected final payment of the fund balance assuming death at that age.

Table B.2
***TE* Fractions for Different Benefit Payout Forms**

	Fraction
RRIF, minimum withdrawals	0.132
23-year term-certain annuity, 1% indexing	0.129
Life annuity, 1% indexing	0.128
Life annuity, no indexing	0.121
RRIF, withdrawal rates: 7.5% age 65–70, minimum after	0.118
20-year term-certain annuity, 1% indexing	0.116

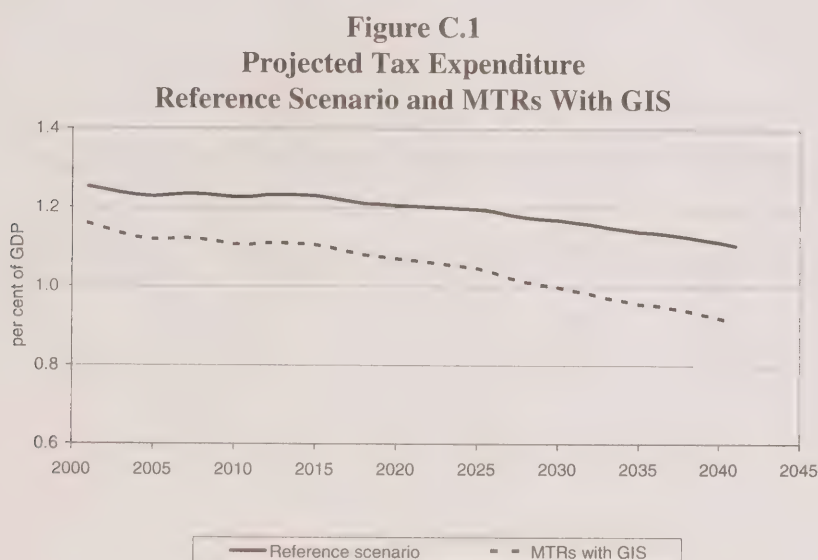
This analysis suggests that the *TE* for a representative life annuity with 1% indexing is equal to that of a term-certain annuity of close to 23 years.

To avoid overstating the tax expenditure and to allow for the presence of RRIFs with faster payout rates, though, we assume a 20-year term from age 65 to 84.

C. Projection With Modified Marginal Tax Rates

Figure C.1 provides a projection for a modified form of the cash flow tax expenditure that is reported on an annual basis. The *TE* is modified by adjusting the marginal tax rates on RPP/RRSP benefits and investment income to take into account the effect of additional income on the Guaranteed Income Supplement (and Allowance) benefits of lower-income individuals age 60 or older. The MTRs for 2001 are increased from 17.6% to 21.0% for benefits and 20.6% to 21.9% for investment income.⁴

These changes do not affect the flows into and out of RPPs and RRSPs but do affect the *TE* levels. By increasing the weight given to benefits in the *TE* formula, they reduce the *TE* level in all years and slightly increase its downward trend as the population ages over the projection period. The *TE* in this projection declines from 1.16% of GDP in 2001 to 0.91% in 2041.



⁴ Based on T1 data for 2000, about 22% of households headed by seniors receive both pension income and Guaranteed Income Supplement benefits.

ELIMINATION OF THE FEDERAL CAPITAL TAX:
BUILDING ON THE CANADIAN TAX ADVANTAGE

1. INTRODUCTION

Enhancing the well-being of Canadians through higher living standards and a better quality of life lies at the heart of the Government's economic and social policies. Achieving high and sustainable living standards and a better quality of life requires that economic and social progress advance together. By undertaking the right investments and creating favourable conditions for growth, the Government can help provide the foundation for such progress.

Beyond a stable fiscal and monetary climate, the key drivers of a stronger economy are those that allow Canada to improve its productivity performance. These include such factors as a tax system that encourages economic growth and job creation, and investments in new technologies and research.

An efficient tax structure can enhance incentives to work, save and invest. It can also support entrepreneurship and the emergence and growth of small businesses. A competitive tax system is also critical in encouraging investment in Canada, leading to greater economic growth and job creation.

In 2000 the Government set out a five-year \$100-billion tax reduction plan that provided significant personal income tax reductions and strengthened the foundation for economic growth and job creation. The plan:

- reduced personal income taxes by lowering tax rates, eliminating the deficit reduction surtax and restoring full indexation—by 2004–05 the plan will have reduced federal personal income taxes by 21% on average and by 27% for families with children;
- reduced the capital gains inclusion rate from three-quarters to one-half and introduced the small business capital gains rollover—enhancing incentives for entrepreneurs and small businesses to invest; and
- will have reduced the general corporate income tax rate from 28% in 2000 to 21% in 2004—contributing to creating a Canadian tax advantage for investment.

As a result, and taken together with cuts in provincial tax rates, in 2003 the average federal/provincial corporate tax rate (including capital taxes) is below the average U.S. rate.

The 2003 budget introduced measures to build on the Five-Year Tax Reduction Plan to further promote entrepreneurship and small business, and strengthen the Canadian advantage for investment. In particular, the 2003 budget announced the elimination of the federal capital tax over a period of five years. It also proposed to reduce the corporate tax rate of the resource sector to 21% over five years while improving the tax structure of this key sector.

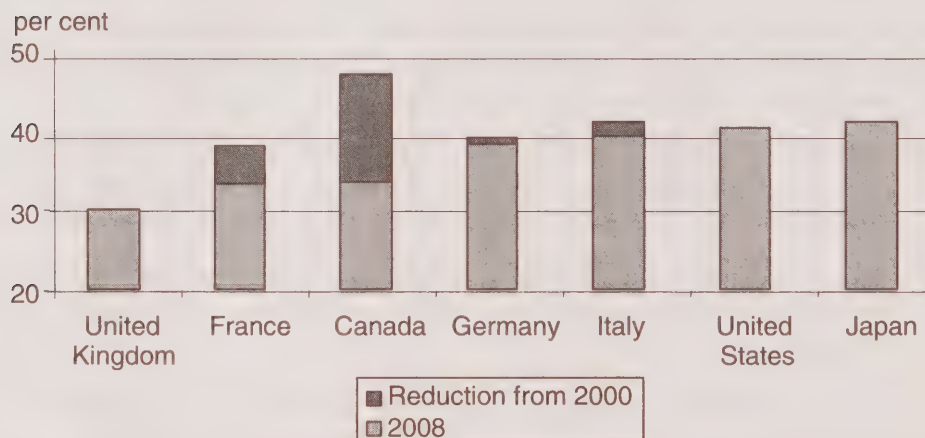
This paper focuses on the elimination of the federal capital tax and how it is contributing to strengthening the Canadian tax advantage.

2. BACKGROUND

The 7-percentage-point reduction in the general federal corporate income tax rate (from 28% to 21%) announced in the 2000 budget was an important step to make Canada's corporate tax system more competitive internationally and more consistent across industries.

In 2000 Canada's corporate tax rate (including federal and provincial capital taxes) was the highest of the Group of Seven (G-7) countries. While manufacturing (21%) and small business (12%) had competitive corporate income tax rates, the remaining sectors of the economy were facing a corporate income tax rate of 28%. A competitive tax system is critical in fostering a strong and productive economy by encouraging investment in Canada and in minimizing the incentive to shift income to other jurisdictions with lower corporate tax rates.

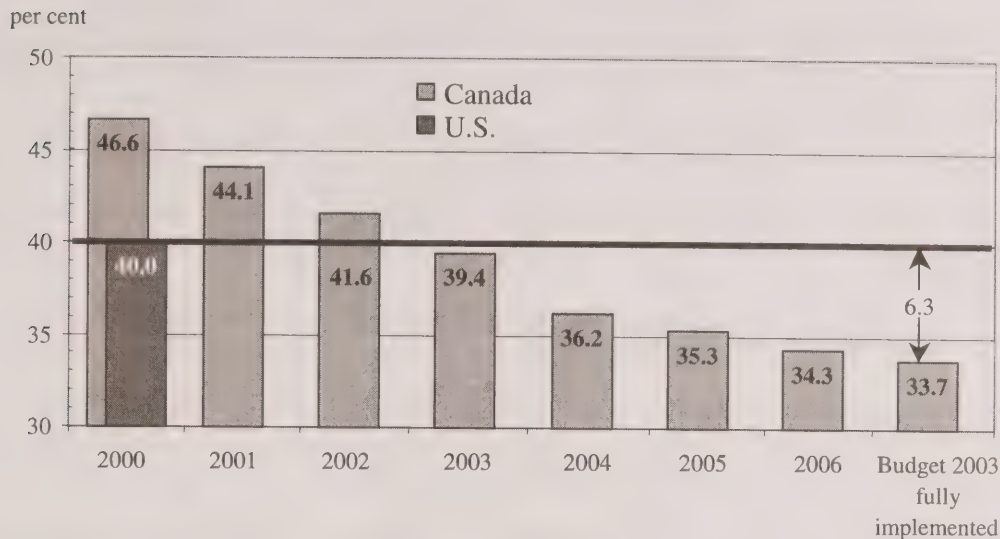
Chart 1
Corporate Tax Rates in G-7 Countries in 2000 and 2008



Note: Corporate tax rates are average federal corporate income tax rates plus provincial/state corporate income tax rates and include the income tax rate equivalent of capital taxes. Rates effective by 2008, based on changes announced to June 2003.

The elimination of the federal capital tax will strengthen the Canadian tax advantage. When the federal capital tax is eliminated in 2008, and taking into account announced changes to provincial tax rates, the average federal/provincial corporate tax rate in Canada, including the effect of capital taxes, will be more than 6 percentage points lower than in the U.S.

Chart 2
Corporate Tax Rates in Canada and the U.S.



Note: Rates are based on changes announced to June 2003. Rates are average federal corporate income tax plus provincial/state corporate income tax rates and include the income tax rate equivalent of capital taxes.

3. CAPITAL TAXES

Federal Capital Taxes

The federal capital tax was introduced in the 1989 budget, at a time when the federal government was struggling with budgetary deficits. It applies at a rate of 0.225% to all corporations, including financial institutions, on taxable capital employed in Canada exceeding \$10 million. A corporation's taxable capital is generally described as the total of its shareholders' equity, surpluses and reserves, as well as loans and advances to the corporation, less certain types of investments in other corporations. A corporation's federal income surtax (1.12% of taxable income) is deductible against the corporation's capital tax liability. Surtax credits in excess of a corporation's capital tax liability can be carried back to reduce the federal capital tax paid in the three previous years or carried forward to reduce capital tax liability in the following seven years.

The revenue from the federal capital tax (after surtax offsets) was \$1.3 billion in 2000, paid by approximately 18,500 corporations. Of that number, approximately two-thirds (about 12,000) had no taxable income (see Table 1).

Table 1
Tax Status of Corporations Subject to the Federal Capital Tax, 2000

	Number of corporations	Capital tax paid (\$ million)	Average assets (\$ million)
No taxable income	11,998 (65%)	720 (54%)	112
Taxable income	6,463 (35%)	625 (46%)	295
Total	18,461	1,345	175

Source: Department of Finance Canada.

Budget 2003 announced the elimination of the federal capital tax, as follows:

- First, the capital threshold at which the tax applies will be raised from \$10 million to \$50 million effective 2004. As of 2004 medium-sized businesses under the \$50-million threshold will no longer have to pay the tax.
- Second, the rate of the tax will be reduced in stages over a period of five years so that by 2008, the tax will be completely eliminated.

Table 2
Federal Capital Tax Rate Reduction Schedule

	2003	2004	2005	2006	2007	2008
Rate (%)	0.225	0.200	0.175	0.125	0.0625	0

The federal government also levies a capital tax on large financial institutions that applies to banks, trust companies, mortgage loan companies and life insurers. It is levied at a rate of 1% of taxable capital employed in Canada in excess of \$200 million and 1.25% on taxable capital in excess of \$300 million. The amount of income tax paid by the corporation is deductible against this tax. In general, financial institutions should have long-term income tax levels in excess of the capital tax on large financial institutions. This tax ensures that all large financial institutions pay a minimum amount of tax to the federal government each year. No changes are proposed to the special capital tax on large financial institutions.

Provincial Capital Taxes

Quebec was the first province to introduce a capital tax in 1947 and other provinces followed suit in later years. Ontario introduced a capital tax in 1957, British Columbia in 1973, Manitoba in 1976 and Saskatchewan in 1980. Nova Scotia and New Brunswick introduced a general capital tax as part of the harmonized sales tax agreement in 1997.

Provincial capital taxes specific to financial institutions are more recent. Newfoundland was the first province to introduce such a tax in 1982, Nova Scotia followed in 1986, New Brunswick in 1987, Prince Edward Island in 1988 and Alberta in 1990.

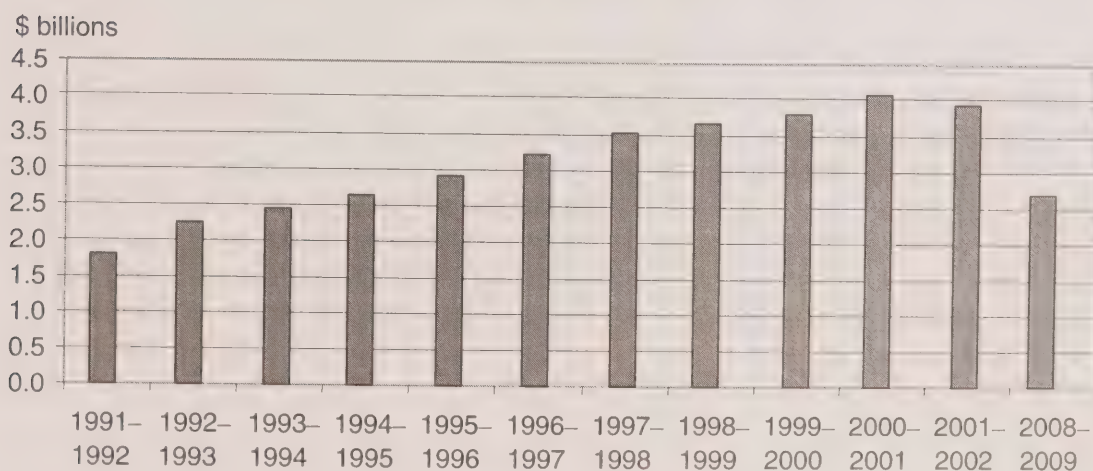
Recently, several provinces have adopted measures to reduce the impact of capital taxes in Canada:

On April 1, 2001, Alberta eliminated its capital tax on financial institutions.

- British Columbia reduced its capital tax on non-financial corporations by half effective September 1, 2001, and eliminated it entirely effective September 1, 2002.
- Ontario's 2003 budget proposes to reduce capital tax rates by 10% on January 1, 2004, with the intention of eliminating its capital tax by the time the federal government eliminates the federal capital tax.

Currently nine provinces impose capital taxes on financial institutions, the exception being Alberta. Only six provinces impose capital taxes on general corporations: Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba and Saskatchewan. These taxes are an important source of provincial government revenues. Provincial capital taxes are deductible from income for tax purposes both at the federal and provincial level. Unlike federal capital taxes, which can be reduced by the income or the income surtax paid, most provincial capital taxes have no offset mechanism. The Appendix provides more details on the structure of provincial capital taxes.

Chart 3
Provincial Capital Tax Revenues



Source: Statistics Canada, Public Institutions Division; 2008-2009 is a forecast from the Department of Finance Canada.

4. ECONOMIC IMPACTS OF ELIMINATING THE FEDERAL CAPITAL TAX

Like taxes on business income, taxes on business capital reduce investment by raising the required rate of return on incremental investment. A firm will only undertake investments that are expected to generate at least enough income (net of wages and other direct production costs and capital depreciation) to pay for the financial cost of capital and taxes. Taxes on business therefore mean less investment because they raise the required rate of return on investment. Unlike income taxes, however, capital taxes must be paid even if the investment is not profitable, which makes them more damaging to investment. For example, capital taxes add to the losses incurred by businesses during economic downturns and reduce the cash flow of start-ups and expanding firms. In other words, because they are profit-insensitive, capital taxes increase the risk of investing to business more than income taxes, which share risks between the firm and the government.

In order to quantify the economic impacts of removing the federal capital tax, simulations have been undertaken with a “general equilibrium” tax model developed by the Department of Finance Canada. This model embodies the essential features of the Canadian economy and tax system, along with standard economic principles-in particular, that taxes affect incentives to work, save and invest.¹ The model is described as “general equilibrium” because it is assumed that capital and labour are fully employed at all times. As a result, general equilibrium models are used to assess how taxes (and economic policies in general) affect incentives to work, save and invest as well as to assess how efficiently, rather than how intensively, capital and labour are used. This is in contrast to macroeconomic forecasting models, which emphasize how government policies can help the economy return to or stay on a “full-employment” growth path.

The economic impacts of eliminating the federal capital tax are summarized in Table 3. Also shown are the impacts of a corporate income tax rate reduction that involves the same revenue loss as eliminating the federal capital tax. The simulations incorporate measures that offset the revenue loss from the tax cut, eliminating any direct effect on the government budget balance. The simulations thus abstract from changes in the Government’s fiscal position such that the model captures the pure efficiency gain of the tax reductions.² Note, however, that the model cannot capture the risk-shifting aspect of the federal capital tax, so the benefits of eliminating the federal capital tax are understated.

¹ A detailed description of the model is available.

² These offsetting measures are included in the model by imposing “lump-sum” or per capita taxes that have no impact on the incentives to work, save or invest. The federal capital tax is of course being eliminated without any offsetting measures, so it will increase the level of demand in the economy.

Table 3
Impact of Revenue-Neutral Tax Reductions¹

	Welfare² gain (in dollars) per dollar of lost government revenue	Consumer spending	Output	Capital stock
	Present value	% change in steady state level		
Elimination of the federal capital tax ³	0.9	0.4	0.6	1.1
A revenue-equivalent reduction in the corporate statutory rate ⁴	0.4	0.2	0.3	0.5

¹ The revenue loss is recovered through lump-sum (non-distorting taxes.)

² Includes the value of leisure as well as consumer spending.

³ Excludes impacts from profit insensitivity of the Federal capital tax.

⁴ Excludes impacts arising from changed incentives to shift income out of Canada.

The model indicates that the elimination of the federal capital tax will provide a significant boost to investment, which, in the long run, will raise the capital stock just over 1%. This is accompanied by a permanent increase in real output and consumer spending of about one-half of 1%. These benefits are easier to understand when expressed per dollar of tax revenue foregone. The first column of Table 3 shows that the present value of the welfare gain, which is defined as the sum of consumer spending and an imputed value of leisure, equals 90 cents for every dollar of revenue lost by eliminating the federal capital tax. As noted above, this is a pure efficiency gain since, for purposes of the simulation, the revenue lost by eliminating the federal capital tax is assumed to be recovered by raising other taxes that do not affect economic efficiency.

The economic benefits of eliminating the federal capital tax are roughly twice as large as the benefits from a revenue-equivalent reduction in statutory rates, even without considering the profit insensitivity aspect of capital taxes. A key source of the discrepancy is the interaction of tax rate reductions with capital cost allowances (CCAs) and adjustment costs. When CCA exceeds economic depreciation, as it does on average in Canada, firms receive a tax benefit on new investment that is valued at the corporate tax rate. Reducing the statutory rate therefore lowers the value of this CCA tax benefit. Since there is no interaction between CCA and capital taxes, eliminating the federal capital tax has a larger impact on the effective tax rate on new investment than a revenue-equivalent reduction in the income tax rate.

This effect is reinforced when the adjustments that firms must go through when they make new investments are taken into consideration. Adjustment costs, modelled in the form of temporarily lower production as firms invest, reduce taxable income, and an income tax rate reduction increases the after-tax cost of this "expense." This also lowers the benefit of the income tax rate cut for new investment. There is no parallel effect with capital taxes.

While the simulation results show that statutory rate reductions are less potent than cuts in capital taxes, the benefits of lowering statutory rates are sensitive to the starting point. In 2000 Canada's combined federal/provincial statutory rate was the highest in the G-7, giving multinational enterprises (MNEs) operating in Canada an incentive to shift taxable income to other jurisdictions. The rate reductions announced in Budget 2000, along with cuts at the provincial level, will make Canada a low-tax jurisdiction in the G-7. As a result, the income tax cuts initiated in 2000 will deliver two benefits: improved economic performance and potential additional revenue as Canadian-based MNEs have less of an incentive to shift taxable income out of Canada. In contrast, the hypothetical reduction considered in this analysis implicitly³ takes projected levels in 2005 as the starting point and assumes that the rate reduction has no impact on tax planning by MNEs.

³ The model used in this analysis does not capture tax base shifting by MNEs.

APPENDIX: MAIN FEATURES OF FEDERAL AND PROVINCIAL CAPITAL TAXES, 2003

General		Financial Institutions
	Rate (deduction)	Rate (deduction)
Federal	0.225% (\$10 million, \$50 million after 2003) ⁴	1/1.25% (\$200 million) ^{1, 6}
Newfoundland and Labrador	None	4% (\$5 million if taxable capital < \$10 million; else none)
Prince Edward Island	None	3% (\$2 million)
Nova Scotia ⁷	If taxable capital < \$10 million: 0.5% (\$5 million); if taxable capital > \$10 million: 0.25% (none) ³	3% (\$0.5 million; \$10 million if trust/loan with head office in Nova Scotia)
New Brunswick	0.3% (\$5 million)	3% (\$10 million)
Quebec ⁹	0.6% (\$250,000)	1.2% (\$250,000) ^{8, 13}
Ontario ¹²	0.3% (\$5 million)	0.6-0.9% (\$5 million) ^{5, 13}
Manitoba ⁷	0.3% on first \$10 million of taxable capital; 0.5% on the excess (\$5-million exemption, becoming a deduction on January 1, 2004)	3% (\$5-million exemption, becoming a deduction on January 1, 2004)
Saskatchewan ²	0.6% (\$10 million to \$15 million) ¹⁰	If taxable capital < \$400 million: 0.7%; else: 3.25% (\$10 million to \$15 million) ¹⁰
Alberta	None	Repealed on April 1, 2001
British Columbia	Repealed on September 1, 2002	1% (\$5 million); ¹¹ If taxable capital > \$1 billion and head office outside B.C.: 3% (\$5 million)

Source: M.G. Mallin, *Preparing Your Corporate Tax Returns, Canada and Provinces*, 23rd edition, 2003, CCH Canadian Limited.

¹ % on capital between \$200 million and \$300 million, 1.25% on the excess.

Large resource companies pay the greater of the general capital tax and a special gross resource revenue tax.

The Nova Scotia general capital tax is set to expire on March 31, 2006.

The general federal capital tax will be phased out over five years: 0.2% in 2004, 0.175% in 2005, 0.125% in 2006 and 0.0625% in 2007. Reduced by surtax on income.

⁶ 0.6% on the first \$400 million in capital, 0.72% on the excess for non-deposit-taking institutions, 0.9% on the excess for deposit-taking institutions. Credit unions are exempt.

Reduced by income tax.

Insurance corporations are treated as ordinary corporations.

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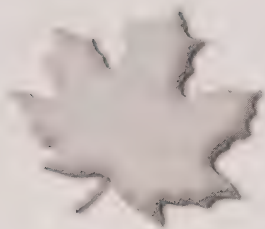


TAX EXPENDITURES AND EVALUATIONS

2004



Canada



TAX EXPENDITURES AND EVALUATIONS

2004



Department of Finance
Canada

Ministère des Finances
Canada

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PREFACE

Since 2000 the tax expenditure report has been separated into two documents. This document, *Tax Expenditures and Evaluations*, is published on an annual basis. It provides estimates and projections for broadly defined tax expenditures as well as evaluations and descriptive papers addressing specific tax measures. Two presentational changes have been made this year. First, the estimates and projections are now grouped by functional category (e.g. small business) for business income tax and goods and services tax measures, as they have been for personal income tax measures. Second, subheadings have been added to the “Memorandum Items” section of the tables to identify various categories of measures that are part of the benchmark tax system (e.g. recognition of expenses incurred to earn income).

This year’s edition of *Tax Expenditures and Evaluations* includes two studies. The first presents the results of an evaluation of the disability tax credit, which was undertaken further to the Government’s response to the Seventh Report of the Standing Committee on Human Resources Development and the Status of Persons with Disabilities. The second study examines the long-run economic costs imposed by the principal taxes in Canada using a model of the Canadian economy developed at the Department of Finance.

The companion document, *Tax Expenditures: Notes to the Estimates/Projections*, is being published again this year. It is a reference document for readers who want information on the objectives of individual tax expenditures and who wish to know more about how the estimates and projections are calculated.

PART 1
TAX EXPENDITURES:
ESTIMATES AND PROJECTIONS

INTRODUCTION

The principal function of the tax system is to raise the revenues necessary to fund government expenditures. How much revenue is raised is determined by tax bases and tax rates. It is also a function of a range of measures—special tax rates, exemptions, deductions, rebates, deferrals and credits—that affect the level and distribution of tax. These measures are sometimes called “tax expenditures” because they have an impact on government revenue (i.e. they have a cost) and they reflect policy choices of the Government.

In order to define tax expenditures, it is necessary to establish a “benchmark” tax structure that applies the relevant tax rates to a broadly defined tax base—e.g. personal income, business income or consumption. Tax expenditures are then defined as deviations from this benchmark. Reasonable differences of opinion exist about what should be considered a normal part of the tax system and hence about what should be considered a tax expenditure. For example, a deduction for expenses incurred in earning income is generally considered as part of the benchmark and thus not as a tax expenditure. But in some cases the deduction may confer some personal benefit, making its classification ambiguous.

This report takes a broad approach and includes estimates and projections of the revenue loss associated with all but the most fundamental structural elements of the tax system, such as the progressive personal income tax rate structure. This includes not only measures that may reasonably be regarded as tax expenditures but also other measures that may be considered part of the benchmark tax system. The latter are listed separately under “Memorandum Items.” For instance, the dividend tax credit is listed under this heading because its purpose is to reduce or eliminate the double taxation of income earned by corporations and distributed to individuals through dividends. Also included under this heading are measures for which there may be some debate over whether they should be considered tax expenditures or where data limitations do not permit a separation of the tax expenditure and benchmark components of the measure. This approach provides information on a full range of measures.

Caveats

Care must be taken in interpreting the estimates and projections of tax expenditures in the tables for the following reasons.

- The estimates and projections are intended to indicate the potential revenue gain that would be realized by removing individual tax measures. They are developed assuming that the underlying tax base would not be affected by removal of the measure. However, this is an assumption that is unlikely to be true in practice as the behaviour of economic agents, overall economic activity and other government policies could change along with the specific tax provision.
- The cost of each tax measure is determined separately, assuming that all other tax provisions remain unchanged. Many of the tax expenditures do, however, interact with each other such that the impact of several tax provisions at once cannot generally be calculated by adding up the estimates and projections for each provision.
- The federal and provincial income tax systems interact with each other to various degrees. As a result, changes to tax expenditures in the federal system may have consequences for provincial tax revenues. In this publication, however, any such provincial effects are not taken into account—that is, the tax expenditure estimates and projections address strictly the federal tax system and federal tax revenue.
- In the case of the harmonized sales tax in effect in Nova Scotia, New Brunswick, and Newfoundland and Labrador, only the federal cost of the tax expenditures is reported.
- The tax expenditure estimates and projections presented in this document are developed using the latest available taxation data. Revisions to the underlying data as well as improvements to the methodology can result in substantial changes to the value of a given tax expenditure in successive publications. In addition, estimates and projections for some tax measures, such as the half inclusion rate on capital gains, are particularly sensitive to economic parameters and hence may also differ significantly from one publication to the next.

WHAT'S NEW IN THE 2004 REPORT

A number of new tax measures have been introduced since last year's report and others have been modified. These are described below.

Personal Income Tax

Disability Supports Deduction

- Budget 2004 proposed to replace the attendant care deduction with a broader disability supports deduction, effective for the 2004 and subsequent taxation years. The deduction will recognize, in addition to attendant care, other disability supports expenses incurred for education or employment purposes (such as tutoring for persons with learning disabilities), unless they have been reimbursed by a non-taxable payment (e.g. insurance payment). Individuals will not have to be eligible for the disability tax credit in order to claim the deduction. The deduction will generally be limited to the lesser of the amounts paid for eligible expenses and the taxpayer's earned income, which includes wages, self-employment income and scholarships. Students may be able to deduct a higher amount.

Mineral Exploration Tax Credit

- In October 2000 the Government introduced a temporary tax credit for mineral exploration to moderate the impact of the global downturn in exploration activity. The credit provides individuals with an additional tax incentive related to the purchase of certain flow-through share investments. The credit is equal to 15 per cent of specified grass roots mineral exploration expenses incurred in Canada by a corporation and renounced to an individual under a flow-through share agreement.

The 2003 budget announced an extension to the scheduled expiry date of the credit by one year to December 31, 2004. It also removed a restriction that had made the flow-through share look-back rule unavailable for the final year of the credit. As a result of the 2003 budget measure, funds raised from an individual under a flow-through share agreement in 2004 can be expended by a corporation up to the end of 2005 and be eligible for the credit as a deemed expense of the individual in 2004.

Although market conditions for mineral exploration have improved since the credit was introduced, Budget 2004 proposed to establish in legislation an expiry date for the credit of December 31, 2005, in order to provide companies with ample time to plan their transition from the credit. Under the look-back rule, this will allow eligible expenses to be incurred up until the end of 2006.

Medical Expense Tax Credit

- Budget 2004 proposed changes to the medical expense tax credit to allow caregivers to claim more of the medical and disability-related expenses that they incur on behalf of dependent relatives.
 - Specifically, medical expense claims made on behalf of minor children will be pooled with the medical expenses of the taxpayer and his or her spouse or common-law partner, subject to the taxpayer's minimum expense threshold (for 2004, the lesser of 3 per cent of the taxpayer's net income and \$1,813), without regard to the income of the minor child.
 - For medical expenses paid on behalf of other dependent relatives (e.g. grandparent, niece, nephew, etc.), taxpayers will be able to claim qualifying medical expenses paid on behalf of such a dependant that exceed the lesser of 3 per cent of the dependant's net income and \$1,813 (that is, the threshold for the medical expense tax credit that would apply if the dependant claimed the expenses). The maximum eligible amount that can be claimed on behalf of dependent relatives other than minor children will be \$5,000.

Tax Relief for Canadian Forces Personnel and Police

- The 2004 budget introduced tax relief for Canadian Forces personnel and police deployed to dangerous international operational missions. Eligible individuals will be entitled to deduct from their taxable income the amount of their related employment earnings from these missions to the extent that those earnings have been included in computing income, up to the maximum rate of pay earned by a non-commissioned member of the Canadian Forces (currently \$6,089 per month). This measure applies to the 2004 and subsequent tax years.

Canada Learning Bond/Enhanced Canada Education Savings Grant

- To provide greater support for low-income Canadians to help offset the costs of post-secondary education, Budget 2004 proposed two measures to assist low- and middle-income families to save towards their children's future post-secondary education.
 - Budget 2004 introduced the Canada Learning Bond (CLB) program, designed to kick-start education savings for children in low-income families. The CLB will provide up to \$2,000 of education savings in a registered education savings plan (RESP) by age 16 for children in families entitled to the National Child Benefit supplement.
 - The budget also proposed enhancements to the Canada Education Savings Grant (CESG) program to strengthen assistance for low- and middle-income families that wish to save for their children's post-secondary education using an RESP.
- While the CLB and CESG do not directly represent a tax expenditure, they increase the cost of the tax expenditure associated with RESPs to the extent that they encourage their increased use.

Business Income Tax

Accelerating the Increase in the Small Business Limit

- The 2003 budget provided that the amount of active business income eligible for the small business deduction would increase from \$200,000 in 2002 to \$225,000 for 2003, \$250,000 for 2004, \$275,000 for 2005 and \$300,000 after 2005. The 2004 budget proposed to accelerate the implementation of the measure by increasing the eligible amount to \$300,000 for 2005 and subsequent years.

Goods and Services Tax

Increased GST Rebate for Municipalities

- As announced in the February 2, 2004, Speech from the Throne, the rebate in respect of the goods and services tax and the federal portion of the harmonized sales tax for municipalities was increased to 100 per cent from 57.14 per cent. This measure has been legislated and is effective February 1, 2004.

THE TAX EXPENDITURES

Tables 1 to 3 provide tax expenditure values for personal income tax, corporate income tax and the goods and services tax (GST) for the years 1999 to 2006.

Estimates and projections are developed using the methodology set out in Chapter 1 of *Tax Expenditures: Notes to the Estimates/Projections*.¹ The economic variables used to develop the estimates and projections are based on the private sector average forecast presented in the March 2004 budget.

The tax expenditures are grouped according to functional categories. This grouping is provided solely for presentational purposes and is not intended to reflect underlying policy considerations.

All estimates and projections are reported in millions of dollars. The letter “S” indicates that the cost is less than \$2.5 million, “n.a.” signifies that data is not available to support a meaningful estimate/projection, and a dash means that the tax expenditure is not in effect. The inclusion in the report of items for which estimates and projections are not available is warranted given that the report is designed to provide information on measures included in the tax system even if it is not always possible to provide their revenue impacts. Work is continuing to obtain quantitative estimates and projections where possible.

¹ Available on the Department of Finance Web site at www.fin.gc.ca.

Table 1
Personal Income Tax Expenditures**

	Estimates			Projections					
	1999	2000	2001	2002	2003	2004	2005	2006	
	(\$ millions)								
Charities, Gifts and Contributions									
Charitable donations credit	1,350	1,495	1,490	1,515	1,550	1,575	1,605	1,635	
Reduced inclusion rate for capital gains arising from donations of publicly listed securities and ecologically sensitive land ¹	13	19	6	6	7	8	9	10	
Non-taxation of capital gains on gifts of cultural property ²	11	14	10	9	11	12	13	13	
Non-taxation of gifts and bequests	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Political contribution tax credit ³	10	19	8	9	9	22	18	21	
Culture									
Assistance for artists	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Deduction for artists and musicians	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Education									
Adult basic education—tax deduction for tuition assistance	—	—	—	10	5	5	5	5	
Apprentice vehicle mechanics' tools deduction	—	—	—	10	10	10	10	10	
Education credit ⁴	135	140	260	260	270	275	280	285	
Tuition fee credit	290	310	275	285	305	315	325	335	
Carry-forward of education and tuition fee credits	110	165	170	170	175	175	180	180	
Transfer of education and tuition fee credits	335	325	390	400	415	430	440	445	
Partial exemption of scholarship, fellowship and bursary income ⁵	6	29	21	21	22	22	23	23	
Registered education savings plans (RESPs) ⁶	75	97	105	115	125	125	140	145	
Student loan interest credit	58	66	66	67	70	71	73	75	

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, available on the Department of Finance Web site at www.fin.gc.ca, for a discussion of the reasons for this.

† The February 2000 budget fully indexed, effective January 1, 2000, those parameters that were previously only partially indexed. The *Economic Statement and Budget Update* of October 2000 reduced all personal income tax rates and eliminated the deficit reduction surtax, effective January 1, 2001. These rate reductions lower the value of exemptions and deductions, as well as those non-refundable tax credits whose values depend on a tax rate, in the year the change was introduced, but this is generally followed by growth in their value over time in line with increases in the underlying tax base.

Table 1

Personal Income Tax Expenditures (cont'd)

	Estimates			Projections					
	1999	2000	2001	2002	2003	2004	2005	2006	
	(\$ millions)								
Employment									
Deduction for income earned by military and police deployed to high-risk international missions ⁷	—	—	—	—	—	30	30	30	30
Deduction of home relocation loans	S	S	S	S	S	S	S	S	S
Deferral of salary through leave of absence/sabbatical plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Employee benefit plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Employee stock options ⁸	295	690	650	520	500	500	500	500	500
Non-taxation of certain non-monetary employment benefits	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of strike pay	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Northern residents deductions	135	135	125	125	125	125	130	130	130
Overseas employment credit	53	55	57	58	59	60	60	61	61
Tax-free amount for emergency service volunteers	14	14	14	14	14	14	14	14	14
Family									
Canada Child Tax Benefit (CCTB) ⁹	5,930	6,610	7,370	7,755	8,205	8,725	9,295	9,705	9,705
Caregiver credit ¹⁰	29	35	57	60	60	65	65	70	70
Deferral of capital gains through transfers to a spouse, spousal trust or family trust	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Infirm dependant credit ¹⁰	7	5	6	5	5	5	5	5	5
Spouse or common-law partner credit ¹¹	1,140	1,225	1,160	1,210	1,245	1,310	1,350	1,395	1,395
Eligible dependant credit ¹¹	545	625	610	630	645	665	680	695	695
Farming and Fishing									
\$500,000 lifetime capital gains exemption for farm property ¹²	355	325	215	220	220	220	225	225	225
Cash basis accounting	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of capital gains through intergenerational rollovers of family farms and commercial woodlots	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of income from destruction of livestock ¹³	S	S	3	S	S	3	-3	S	S
Deferral of income from sale of livestock during drought years	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of income from grain sold through cash purchase tickets ¹⁴	51	5	-26	21	-3	8	9	10	10

Table 1

Personal Income Tax Expenditures (cont'd)

	Estimates			Projections				
	1999	2000	2001	2002	2003	2004	2005	2006
				(\$ millions)				
Labour-sponsored venture capital corporations credit ²²	180	255	215	190	155	155	155	155
Rollovers of investments in small businesses	—	3	6	10	20	25	30	30
Health								
Child Disability Benefit (CDB) ²³	—	—	—	—	25	50	50	50
Disability tax credit (DTC) ²⁴	265	275	330	345	365	375	390	405
Medical expense tax credit ²⁵	500	550	570	645	700	765	810	860
Non-taxation of business-paid health and dental benefits	1,735	1,610	1,710	1,870	2,080	2,240	2,445	2,640
Refundable medical expense supplement	36	42	55	60	65	70	70	75
Income Maintenance and Retirement								
Age credit	1,355	1,385	1,320	1,375	1,425	1,490	1,540	1,600
Deferred profit-sharing plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of certain amounts received as damages in respect of personal injury or death	17	15	15	15	16	15	16	16
Non-taxation of Guaranteed Income Supplement and Allowance benefits	275	290	265	275	290	295	300	310
Non-taxation of investment income on life insurance policies ²⁶	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of RCMP pensions/compensation in respect of injury, disability or death	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of social assistance benefits ²⁷	315	290	245	230	230	210	205	200
Non-taxation of up to \$10,000 of death benefits	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of veterans' allowances, civilian war pensions and allowances, and other service pensions (including those from Allied countries)	S	S	S	S	S	S	S	S
Non-taxation of veterans' disability pensions and support for dependants	160	135	135	150	150	150	150	150
Non-taxation of workers' compensation benefits	635	665	650	685	725	745	785	825
Pension income credit	415	425	405	415	425	435	440	455

Table 1

Personal Income Tax Expenditures (cont'd)

	Estimates			Projections				
	1999	2000	2001	2002	2003	2004	2005	2006
	(\$ millions)							
Registered pension plans (RPPs) ²⁸								
Deduction for contributions	5,030	4,895	4,575	4,400	4,870	5,265	5,810	6,120
Non-taxation of investment income ²⁹	17,285	10,455	-810	415	7,950	8,155	9,415	9,720
Taxation of withdrawals	-6,695	-6,695	-6,415	-6,770	-7,235	-7,500	-7,960	-8,445
Net tax expenditure	15,620	8,655	-2,655	-1,950	5,590	5,920	7,265	7,390
Registered retirement savings plans (RRSPs) ²⁸								
Deduction for contributions	6,965	7,155	6,225	6,300	6,790	7,100	7,565	8,130
Non-taxation of investment income ²⁹	8,820	5,480	-435	235	4,770	5,105	6,130	6,570
Taxation of withdrawals	-2,665	-3,515	-3,465	-4,040	-4,410	-4,695	-5,105	-5,550
Net tax expenditure	13,120	9,120	2,320	2,500	7,150	7,515	8,585	9,155
Supplementary Information:								
Present value of tax assistance for retirement savings plans ^{30, 31}	8,245	8,100	7,265	7,180	7,780	8,265	8,910	9,465
Saskatchewan Pension Plan	S	S	S	S	S	S	S	S
Treatment of alimony and maintenance payments	170	170	115	115	110	105	105	105
Other Items								
Deduction related to vows of perpetual poverty	S	S	S	S	S	S	S	S
Deduction for clergy residence	63	68	67	69	70	70	71	72
Non-taxation of capital gains on principal residences ³²								
Partial inclusion rate	970	1,000	885	1,405	1,835	1,870	1,875	1,875
Full inclusion rate	1,295	1,530	1,770	2,810	3,665	3,740	3,745	3,745
Non-taxation of income from the Office of the Governor General	S	S	S	S	S	S	S	S
Non-taxation of income of Indians on reserves	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Special tax computation for certain retroactive lump-sum payments	S	S	S	S	S	S	S	S

Table 1

Personal Income Tax Expenditures (cont'd)

	Estimates			Projections				
	1999	2000	2001	2002	2003	2004	2005	2006
	(\$ millions)							
Memorandum Items								
<i>Avoidance of Double Taxation</i>								
Dividend gross-up and credit	1,240	970	1,215	1,170	1,250	1,350	1,525	1,645
Foreign tax credit	535	585	635	645	655	660	670	680
Non-taxation of capital dividends	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<i>Recognition of Expenses Incurred to Earn Income</i>								
Child care expense deduction ³³	545	595	530	540	545	540	550	560
Deduction of carrying charges incurred to earn income	760	875	825	860	905	930	970	1,005
Deduction of union and professional dues	570	590	550	570	595	600	620	640
Disability supports deduction (attendant care deduction) ³⁴	S	S	S	S	S	15	15	15
Moving expense deduction	79	71	81	83	86	87	90	92
<i>Loss Offset Provisions</i>								
Capital loss carry-overs ³⁵	190	225	86	87	90	91	93	95
Farm and fishing loss carry-overs	12	14	16	15	15	15	14	14
Non-capital loss carry-overs	110	91	78	79	82	83	85	87
<i>Social and Employment Insurance Programs</i>								
Canada Pension Plan and Quebec Pension Plan ³⁶								
Employee-paid contribution credit	1,600	1,845	1,980	2,245	2,465	2,545	2,630	2,715
Non-taxation of employer-paid premiums ³⁷	2,515	2,845	2,980	3,385	3,730	3,785	3,920	4,055
Employment insurance								
Employment insurance contribution credit	1,230	1,200	1,085	1,085	1,060	1,020	1,045	1,065
Non-taxation of employer-paid premiums	2,585	2,485	2,160	2,160	2,120	2,000	2,050	2,095
<i>Other</i>								
Basic personal credit	19,610	21,065	20,460	21,310	21,985	22,935	23,650	24,395
Supplementary low-income credit ³⁸	135	—	—	—	—	—	—	—
Deduction of farm losses for part-time farmers	62	59	60	58	58	57	58	58
Deduction of other employment expenses	730	770	735	760	790	800	825	850
Deduction of resource-related expenditures	145	125	155	160	165	165	170	175
Reclassification of flow-through shares ³⁹	20	24	33	30	32	31	31	31

Table 1

Personal Income Tax Expenditures (*cont'd*)

	Estimates			Projections		
	1999	2000	2001	2002	2003	2006
	(\$ millions)					
Non-taxation of lottery and gambling winnings ⁴⁰	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of specified incidental expenses ⁴¹	4	4	—	—	—	—
Non-taxation of allowances for diplomats, military and other government employees posted abroad	9	9	9	10	11	12
Partial deduction of meals and entertainment expenses	77	86	85	86	87	87
						88
						89

Notes:

¹ The decline in the tax expenditure in 2001 reflects both the decline in capital markets after the year 2000 and the reduction in the normal capital gains inclusion rate from three-quarters to one-half in 2000.

The total tax expenditure cost to the Government of this measure has two components: the revenue forgone as a result of the reduced inclusion rate (which is shown in the main table) and the increased cost of the charitable donations credit from any increase in donations that result from the measure. If all donations of listed securities and ecologically sensitive land would have been made in the absence of this measure, then (as shown in the main table) the total cost ranges from \$6 million to \$19 million between 1999 and 2006. If, on the other hand, all donations of listed securities and ecologically sensitive land came about as a result of the reduced inclusion rate on capital gains, and if in the absence of the measure the shares and land would have been sold instead of donated, then the cost of the measure ranges from \$42 million to \$80 million between 1999 and 2006, as shown below (in millions of dollars):

1999	2000	2001	2002	2003	2004	2005	2006
52	80	42	45	53	61	68	77

The true costs fall somewhere between the lower and upper bounds set by the ranges indicated.

² The tax expenditure after 1999 reflects the reduction in the normal capital gains inclusion rate from three-quarters to one-half in 2000.

The total tax expenditure cost to the Government of this measure has two components: the revenue forgone as a result of the reduced inclusion rate (which is shown in the main table) and the increased cost of the charitable donations credit from any increase in donations that result from the measure. If all donations of cultural property would have been made in the absence of this measure, then (as shown in the main table) the total cost ranges from \$9 million to \$14 million between 1999 and 2006. If, on the other hand, all donations of cultural property came about as a result of the reduced inclusion rate on capital on capital gains, and if in the absence of this measure the property would have been sold instead of donated, then the cost of the measure ranges from \$38 million to \$72 million between 1999 and 2006, as shown below (in millions of dollars):

1999	2000	2001	2002	2003	2004	2005	2006
38	50	52	49	61	66	68	72

The true costs fall somewhere between the lower and upper bounds set by the ranges indicated.

Table 1

Personal Income Tax Expenditures (cont'd)

- ³ The increase in 2000 reflects two factors. First, starting in 2000, the first credit threshold was increased from \$100 to \$200. Second, there was a federal general election in 2000 and, as historical data show, the level of political contributions increases significantly during an election year. The projected increase in 2004 reflects three factors. First, starting in 2004, the three credit thresholds are increased by \$200 each. Second, An Act to amend the Canada Elections Act and the Income Tax Act, which received Royal Assent on May 14, 2004, enables additional political parties to become registered and eligible for the tax credit. Finally, there was a federal general election in 2004.
- ⁴ The October 2000 *Economic Statement* and *Budget Update* increased the education credit to \$400 per month for full-time students and \$120 per month for part-time students, effective January 1, 2001. The 2001 budget introduced a measure that extends the education credit, beginning in 2002, to people who receive taxable assistance for post-secondary education under certain government programs. Budget 2004 proposed that beginning in taxation year 2004, the education credit be extended to students who pursue post-secondary education related to their current employment, provided that their employer does not reimburse the cost of education in whole or in part.
- ⁵ The 2000 budget raised the exemption for scholarship, fellowship and bursary income from \$500 to \$3,000 for students eligible for the education credit. In addition, for 2000 and later tax years, the tax expenditure reflects the additional funds made available to students under the Canada Millennium Scholarship Foundation.
- ⁶ The tax expenditure equals the tax revenue forgone on the tax-sheltered income earned on RESP assets, minus the revenue from taxing withdrawals of income from RESPs (as an Educational Assistance Payment or Accumulated Income Payment). The estimates and projections for RESPs are higher than in last year's publication due to better data on the income levels of RESP subscribers. The projections include the anticipated impact of the Canada Learning Bond, starting in 2004, and an enhanced Canada Education Savings Grant, starting in 2005, which were proposed in the 2004 budget.
- ⁷ This measure was proposed in the 2004 budget.
- ⁸ Increases in the tax expenditure after 1999 reflect the higher value of the stock option deduction, which was increased to 50 per cent in 2000 to reflect the reduced inclusion rate for capital gains. The results for 2000 and, to a lesser extent, 2001 were also affected by market appreciation, especially in the technology sector, as well as increased take-up. Projections for 2003 and subsequent years reflect an assumption of reduced market volatility and reduced take-up due to non-tax considerations.
- ⁹ Although the program year is July–June, payments are reported on a calendar year basis. The 2000 budget and the October 2000 *Economic Statement* and *Budget Update* fully indexed the CCTB starting January 2000, increased the per-child benefit amounts and the National Child Benefit (NCB) supplement and CCTB base benefit phase-out thresholds and, effective July 1, 2004, reduced the CCTB base benefit phase-out rates. The 2003 budget increased the NCB supplement, beyond indexation adjustments, by an annual amount of \$150 per child in July 2003, \$185 in July 2005 and \$185 in July 2006. The projections for 2003 to 2006 do not include the projections for the Child Disability Benefit, which are shown separately.
- ¹⁰ The October 2000 *Economic Statement* and *Budget Update* increased the amount on which the caregiver and infirm dependant credit are based from \$2,386 in 2000 to \$3,500 in 2001. The amount is indexed to inflation for subsequent years.

Table 1

Personal Income Tax Expenditures (cont'd)

- 11 The spouse or common-law partner credit was previously known as the spousal credit. The eligible dependant credit was previously known as the equivalent-to-spouse credit.
- 12 The decline in this tax expenditure after 1999 reflects, in part, reductions to the inclusion rate for capital gains from three-quarters to one-half in 2000.
- 13 The projected tax expenditure for 2004 is slightly higher than in other years due to the effects of the outbreak of avian flu in British Columbia. Because this provision is a deferral measure, the deferred income from 2004 will be reported in 2005, resulting in a negative tax expenditure that year.
- 14 Estimates are based on Statistics Canada data available up to 2003, which include cash purchase tickets for wheat, barley, oats, canola, flax and rye. Projections after 2003 are calculated using a historical average growth rate.
- 15 The data for the Net Income Stabilization Account (NISA) program are observed up to 2003. Since NISA has been replaced by the Canadian Agricultural Income Stabilization (CAIS) program, tax expenditure projections reflect wind-down provisions that require amounts in NISA accounts be withdrawn by March 31, 2009. Projections also reflect recent data from Statistics Canada indicating that withdrawals from the government portion of NISA accounts reached record levels in the first half of 2004. Farmers extracted \$703 million from their government accounts, or over three times the previous five-year average of \$232 million. It should also be noted that CAIS does not result in a tax expenditure.
- 16 Data for unincorporated businesses are not available to estimate this tax expenditure with precision.
- 17 The estimates and projections for this tax expenditure are different from those in previous publications due to a change in the methodology for calculating effective marginal tax rates.
- 18 The estimates and projections have been revised to reflect recent data and a one-year extension announced in the 2004 budget of the temporary measure. The negative figure for 2006 reflects the inclusion in income for that year of an amount equal to the credit claimed in 2005. A deduction for the full amount of the eligible exploration expenditure is allowed for the year for which the credit is claimed. An amount equal to the credit is required to be included in income the following year, however, so as to reverse the deduction in respect of the portion of the expenditure that was effectively paid for by the credit.
- 19 The 2000 budget reduced the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000. The October 2000 *Economic Statement and Budget Update* further reduced the capital gains inclusion rate from two-thirds to one-half, effective October 18, 2000. Increases in this tax expenditure after 1999 reflect reductions to the capital gains inclusion rate as well as anticipated increases in capital gains realizations resulting from changes to this measure.
- 20 No data are available, as it is difficult to estimate the value of unsold assets.

Table 1

Personal Income Tax Expenditures (cont'd)

- ²¹ The decline in this tax expenditure for 2001 and subsequent years reflects the reduction in the capital gains inclusion rate from three-quarters to one-half in 2000. The decline from 2000 to 2001 is also the result of a 28-per-cent reduction in the number of claimants making use of this measure and a 26-per-cent reduction in the average amount of capital gain that they reported for the purpose of this measure.
- ²² The projections of this tax expenditure for 2002 and 2003 are based on preliminary information on sales of shares of labour-sponsored venture capital corporations (LSVCC's) for those years; the decline in the tax expenditure is the result of reduced sales of LSVCC shares. Projections assume sales remain constant after 2003.
- ²³ The CDB is delivered as a supplement to the Canada Child Tax Benefit. The CDB came into effect in July 2003.
- ²⁴ The 2000 budget enhanced the DTC by extending eligibility to individuals requiring extensive therapy and by expanding the list of relatives to whom the DTC can be transferred. The 2000 budget also provided a supplement of up to \$500 for children eligible for the DTC. The October 2000 *Economic Statement and Budget Update* increased the amount on which the DTC is based from \$4,293 to \$6,000 effective 2001.
- ²⁵ The increase in the projected tax expenditure reflects anticipated growth in medical expense claims as well as enhancements to the credit announced in the 2003 and 2004 budgets.
- ²⁶ Although this measure does provide tax relief for individuals, it is implemented through the corporate tax system. See "interest credited to life insurance policies" under "other measures" in Table 2 of this report for an estimate of the value of this tax expenditure.
- ²⁷ The decline in this tax expenditure after 1999 reflects changes in the 1998 to 2000 budgets and the October 2000 *Economic Statement and Budget Update* to reduce tax rates for low-income individuals (e.g. increases in the personal amounts and the reduction in the lowest tax rate).
- ²⁸ The change in the net tax expenditure for 2001 and 2002 relative to prior years reflects lower observed asset levels and corresponding lower rates of return for those years. In particular, total adjusted assets in RPPs and RRSPs are estimated to have declined from about \$1.244 trillion in 2000 to \$1.239 trillion in 2001, resulting in a negative return on investment. For 2002, total adjusted RPP/RRSP assets remained virtually unchanged compared to 2001. These lower asset levels significantly lower the tax expenditure associated with the tax forgone on RPP/RRSP investment income, resulting in a substantial decline in the net tax expenditure for both RPPs and RRSPs in 2001 and 2002. This illustrates the importance of the investment income component in determining the net tax expenditure. Since the observed level of RPP and RRSP assets for 1999 to 2002 is used to determine the rate of return on investment, the tax expenditure will naturally vary from year to year, depending on the derived rate of return. Tax expenditure estimates will be higher in years where assets grow strongly, reflecting the tax forgone on that investment income, and lower in years where assets grow slowly or decline. Given the sizeable effect of rate of return variations on the tax expenditure, there could be considerable variation from year to year.
- ²⁹ The 1999 RRSP assets are based on the estimate reported in Statistics Canada's Survey of Financial Security (SFS). The ratio of 1999 RRSP assets reported in the SFS to 1999 RRSP assets reported in the Statistics Canada publication *Pension Plans in Canada* is used to adjust RRSP assets for 2000, 2001 and 2002 to reflect the more comprehensive SFS estimate, which includes funds in self-administered plans (the ratio is \$408 billion/\$268 billion or 1.52).

Table 1

Personal Income Tax Expenditures (cont'd)

- ³⁰ The present-value estimates reflect the lifetime cost of a given year's contributions. This definition is different from that used for the cash-flow estimates, and thus the two sets of estimates are not directly comparable. Further information on how these estimates are calculated is contained in the paper *Present-Value Tax Expenditure Estimates of Tax Assistance for Retirement Savings*, which was published in the 2001 edition of this report.
- ³¹ The present-value tax expenditure projections presented in this year's report are generally lower than in last year's report due to changes in projected RPP/RRSP contribution levels and updated estimates of applicable tax rates.
- ³² The decline in the tax expenditure for the partial inclusion rate for 2001 reflects the reduction in the capital gains inclusion rate in 2000 from three-quarters to one-half. Projected tax expenditures reflect anticipated increases in home resales and resale housing prices. The estimates for this tax expenditure can vary significantly from year to year. This is primarily the result of unanticipated year-to-year fluctuations in the number of residence resales and in the average price of residences.
- ³³ The 2000 budget increased the deduction limit from \$7,000 to \$10,000 for children eligible for the disability tax credit.
- ³⁴ The 2004 budget proposes to replace the attendant care deduction with a broader disability supports deduction, beginning with the 2004 tax year.
- ³⁵ Projections have been revised downward to reflect market conditions.
- ³⁶ This includes employee- and employer-paid premiums by and for self-employed workers.
- ³⁷ Prior to 2001, self-employed individuals could claim a non-refundable credit at the lowest marginal rate on the employer share of their Canada/Quebec Pension Plan contributions. For 2001 and subsequent years, self-employed individuals may deduct the employer share of their Canada/Quebec Pension Plan contributions paid for their own coverage. The estimates and projections shown are relative to a benchmark system in which no such deduction (or credit) is provided.
- ³⁸ The 1999 budget extended the benefit of this credit to all taxpayers through the basic personal and spousal/equivalent-to-spouse credits effective July 1, 1999.
- ³⁹ This tax expenditure applies to a subset of resource-related deductions. Data are available for 1999 to 2003 on the volume of reclassified shares and are used to calculate 1999 to 2001 estimates and the 2002 and 2003 projections. Due to volatility, the projections for 2004 to 2006 are based on a three-year historical average.

Table 1

Personal Income Tax Expenditures (*cont'd*)

⁴⁰ A number of substantial methodological difficulties call into question the accuracy and utility of estimates of the revenue implications of non-taxation of lottery and gambling winnings. The first methodological difficulty is that the data on payouts/winnings are incomplete. There is solid information on aggregate payouts only for government-run lotteries and bingos. Data on payouts at casinos, video lottery terminals, horseracing, and racetrack slot machines, which constitute a rising share of total spending on gaming, is fragmentary. In addition, no data is available on the payouts/winnings from activities sponsored by charities and other non-government organizations. Second, even if complete information on aggregate payouts were available, the revenue implications of non-taxation still could not be determined with precision. For example, if the benchmark tax system were to include taxation of gambling and lottery winnings, consideration would have to be given to including a deduction for expenses incurred in earning this income, i.e. ticket purchases or wagers/losses. This deduction could be allowed either against all income or against only lottery and gambling winnings. A threshold below which winnings would not be taxable would also be necessary due to the large administrative cost of taxing very small prizes. In the absence of information on the distribution of prizes and the incomes of winners, the resulting potential tax base is difficult to estimate. Further, it would be impractical to tax some forms of winnings (e.g. slot machines) because of the way in which prizes are paid out.

Another important point to note with respect to the non-taxation of lottery and gambling winnings is that under federal-provincial agreements negotiated in 1979 and 1985, the federal government, in exchange for an ongoing payment, undertook to refrain from re-entering the field of gaming and betting and to ensure that the rights of the provinces in that field are not reduced or restricted.

⁴¹ Allowances for members of Parliament and senators are no longer tax-exempt, effective January 2001.

Table 2

Corporate Income Tax Expenditures*

Corporate Income Tax Expenditures	Estimates		Projections ¹					
	1999	2000 ²	2001	2002	2003	2004	2005	2006
					</			

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, available on the Department of Finance Web site at www.fin.gc.ca, for a discussion of the reasons for this.

Table 2

Corporate Income Tax Expenditures (*cont'd*)

	Estimates		Projections ¹					
	1999	2000 ²	2001	2002	2003	2004	2005	2006
				(\$ millions)				
Management fees	46	45	36	44	51	53	56	59
Estate or trust income	16	33	11	21	23	24	25	26
Non-taxation of life insurance companies' world income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tax exemption, or credit for foreign taxes paid, on income of foreign affiliates of Canadian corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sectoral Measures								
<i>Farming</i>								
Cash basis accounting	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of income from destruction of livestock	S	S	S	S	S	S	S	S
Deferral of income from grain sold through cash purchase tickets	20	5	-15	15	S	S	S	S
Flexibility in inventory accounting	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<i>Resource</i>								
Corporate mineral exploration tax credit ¹⁵	—	—	—	—	22	29	40	39
Deductibility of contributions to a qualifying environmental trust	S	S	S	S	S	S	S	S
Earned depletion ¹⁶	39	40	43	66	69	67	59	51
Net impact of the resource allowance and the limited deductibility of Crown royalties and mining taxes ¹⁷	115	130	29	215	310	225	240	110
Tax rate on resource income ¹⁸	—	—	-60	-215	-390	-535	-410	-190
Transitional arrangement for the Alberta Royalty Tax Credit	—	—	—	—	S	S	S	S
<i>Other Sectors</i>								
Exemption from branch tax for transportation, communications, and iron ore mining corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Film or video production services tax credit ¹⁹	53	62	67	67	100	105	110	115
Low tax rate for credit unions ²⁰	38	52	75	79	75	65	68	72
Manufacturing and processing allowance ²¹	1,900	2,150	1,440	950	530	100	—	—
Surtax on the profits of tobacco manufacturers	-70	-40	-80	-80	-80	-80	-80	-80
Temporary tax on the capital of large deposit-taking institutions ²²	-58	-48	—	—	—	—	—	—

Table 2

Corporate Income Tax Expenditures (cont'd)

	Estimates		Projections ¹					
	1999	2000 ²	2001	2002	2003	2004	2005	2006
	(\$ millions)							
Other Measures								
Deductibility of countervailing and anti-dumping duties	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deductibility of earthquake reserves ²³	5	6	7	5	5	5	5	5
Deferral through use of billed basis accounting by professional corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Holdback on progress payments to contractors ²⁴	55	40	40	40	40	40	40	40
Interest credited to life insurance policies	98	91	66	68	69	71	73	75
Income tax exemption of certain federal Crown corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Memorandum Items								
<i>Mechanisms for the Integration of Personal and Corporate Income Tax</i>								
Investment corporation deduction ²⁵	S	S	S	S	S	11	13	16
Refundable capital gains for investment corporations and mutual fund corporations ²⁶	425	645	520	530	550	355	330	305
Refundable taxes on investment income of private corporations								
Additional Part I taxes ²⁷	-525	-625	-570	-695	-875	-1,105	-1,200	-1,295
Part IV tax	-1,515	-1,720	-1,545	-1,490	-1,565	-1,695	-1,850	-1,995
Dividend refund	2,885	3,255	3,115	3,010	3,175	3,445	3,765	4,065
Net expenditure	845	910	1,000	825	735	645	715	775
<i>Expenses Incurred to Earn Income</i>								
Deduction for intangible assets	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deductibility of provincial royalties (joint venture payments) for the Syncrude project (remission order) ²⁸	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	—	—
<i>Loss Offset Provisions</i>								
Capital loss carry-overs ²⁹								
Net capital losses carried back	155	175	215	225	210	160	130	135
Net capital losses applied to current year	550	705	570	320	330	340	355	370
Farm and fishing loss carry-overs ²⁹	24	20	19	19	19	18	19	20

Table 2

Corporate Income Tax Expenditures (*cont'd*)

Corporate Income Tax Expenditures (cont'd)								
	Estimates		Projections ¹					
	1999	2000 ²	2001	2002	2003	2004	2005	2006
	(\$ millions)							
Non-capital loss carry-overs ²⁹	1,410	1,030	1,305	1,310	1,310	1,280	1,255	1,280
Non-capital losses carried back	3,725	4,085	3,380	3,450	3,550	3,445	3,660	3,735
Non-capital losses applied to current year								
<i>Other</i>								
Aviation fuel excise tax rebate ³⁰	n.a.	n.a.	—	—	—	—	—	—
Non-resident-owned investment corporation (NRO) refund ³¹	230	280	280	420	420	—	—	—
Partial deduction of meals and entertainment expenses ³²	330	345	330	320	315	310	325	340
Patronage dividend deduction ³³	270	190	255	330	235	230	250	260

Notes:

- ¹ Unless otherwise indicated in the footnotes, changes in the projections from those in last year's edition of this document result from changes in the explanatory economic variables upon which the projections are based. Projections for 2001 and subsequent years reflect the impact of the reduction in the general corporate income tax rate from 28 per cent to 27 per cent on January 1, 2001, 25 per cent on January 1, 2002, 23 per cent on January 1, 2003, and 21 per cent on January 1, 2004. The corporate surtax raises these rates by 1.12 percentage points.
- ² 2000 estimates are based on preliminary data.
- ³ This treatment should result in a negative tax expenditure since the deduction of an expense incurred to earn income is denied. Under the benchmark tax system, advertising expenses in foreign media incurred to gain or produce income from a business or property would be deductible whether targeted at foreign or domestic markets.
- ⁴ This is a tax expenditure because under the benchmark system capital gains would be taxed on an accrual basis.
- ⁵ The tax deferral associated with taxation of capital gains upon disposition of property, rather than on an accrual basis, represents a deviation from the benchmark tax system and is therefore a tax expenditure.
- ⁶ The 2000 budget reduced the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000. The October 2000 *Economic Statement and Budget Update* further reduced the capital gains inclusion rate from two-thirds to one-half, effective October 18, 2000. Increases in this tax expenditure for 2000 and 2001 reflect increased capital gains and the reduction in the capital gains inclusion rate. The decline in 2002 reflects a projected decrease in capital gains as well as the reduction in the corporate income tax rate.

Table 2

Corporate Income Tax Expenditures (cont'd)

This treatment results in a positive tax expenditure because advertising expenses can provide benefits in more than one year. Under the benchmark tax system, advertising expenses would be amortized over the benefit period. The amount of this tax expenditure can fluctuate significantly from year to year depending upon advertising expenses claimed. Therefore it is projected at its historical average.

⁸ The tax expenditure amount is the investment tax credit earned and claimed in the year.

⁹ The amount of this tax expenditure can fluctuate from year to year depending upon the amount of current-year losses and the availability of income against which to apply these losses.

¹⁰ The increase in the expenditure from 1999 to 2001 is attributable to an increase in taxable income. The reduction in the tax expenditure from 2001 to 2004 results from reductions in the general statutory rate of corporate income tax (the benchmark rate) and a lower growth track for projected taxable income. Projections after 2002 include the positive impact for this tax expenditure of the 2003 budget increase in the amount of income eligible for the small business deduction, and the 2004 budget proposal to accelerate this increase.

¹¹ This measure was announced in the 2000 budget and became effective January 1, 2001. On that date the general federal corporate income tax rate on income between \$200,000 and \$300,000 earned by a Canadian-controlled private corporation from an active business carried on in Canada was reduced to 21 per cent. The lower rate on the general income of small businesses and the change in the general federal tax rate effective January 1, 2001, only partially affect the projection for tax year 2001 since many firms reporting income in the 2001 tax year earned a portion of that income in the 2000 calendar year, before the rate reductions were introduced. Declines in the tax expenditure after 2002 are a result of the reduction in the general corporate income tax rate and the increase, announced in the 2003 budget, in the amount of income eligible for the small business deduction. This measure was effectively eliminated on January 1, 2004, when the general corporate income tax rate was reduced to 21 per cent. Some tax expenditure occurs in 2004, however, as many firms reporting income in the 2004 tax year will earn a portion of that income in the 2003 calendar year.

¹² Estimates and projections were computed on the basis of an analysis of payments to non-residents and withholding tax collections available for 1999 to 2002.

¹³ The decline in 2002 reflects changes in the payments and exemptions as observed from newly available data. Projections for the 2003 to 2006 period have been revised accordingly.

¹⁴ This category includes interest paid to non-resident persons or organizations that would be exempt from income tax in Canada were they residents in Canada. Also included is interest paid under certain securities-lending arrangements exempt under subparagraph 212(1)(b)(xii) of the Income Tax Act, and interest exempt under certain other domestic and treaty provisions.

¹⁵ This tax credit was introduced in the 2003 budget and applies to 2003 and subsequent tax years. It is phased in starting at 5 per cent in 2003, 7 per cent in 2004 and 10 per cent in subsequent years.

¹⁶ Additions to earned depletion pools were eliminated as of January 1, 1990. Determination of the tax expenditure reflects the projected use of existing earned depletion pools.

Table 2

Corporate Income Tax Expenditures (cont'd)

- ¹⁷ The tax expenditure is calculated as the revenue cost of the resource allowance net of non-deductible Crown royalties and provincial mining taxes. Over a five-year period beginning in 2003, the resource allowance is being phased out and a deduction for Crown royalties and mining taxes phased in so that, by 2007, the tax expenditure is effectively reduced to zero. See the technical paper *Improving the Income Taxation of the Resource Sector in Canada*, Department of Finance, March 2003, for further details.
- ¹⁸ Budget 2003 announced an extension to resource income of the lower general corporate tax rate, to be phased in over five years beginning in 2003. By 2007, when the resource rate equals the general rate, the tax expenditure amount will be reduced to zero. See the technical paper *Improving the Income Taxation of the Resource Sector in Canada*, Department of Finance, March 2003.
- ¹⁹ Projections for 2003 and subsequent years reflect the impact of the 2003 budget proposal to increase the rate of the credit from 11 per cent to 16 per cent.
- ²⁰ Credit unions are eligible for the lower federal tax rate of 12 per cent provided to small businesses. The projected increase in 2001 is due to higher taxable income of credit unions. The projections are lower after 2003 due to the increase in the income eligible to the small business tax rate, as announced in the 2003 and 2004 budgets, and the reductions in the general corporate income tax rate.
- ²¹ Although this tax expenditure was eliminated on January 1, 2004, when the general corporate tax rate was reduced to 21 per cent, many firms reporting income in the 2004 taxation year will earn a portion of that income in the 2003 calendar year, before the tax expenditure was effectively eliminated.
- ²² This measure expired on October 31, 2000.
- ²³ The 1999 to 2001 estimates and projections are based on 1999 to 2001 data from the Office of the Superintendent of Financial Institutions and correspond to the estimates and projections published in last year's tax expenditure publication.
- ²⁴ The amount of this tax expenditure can fluctuate significantly from year to year depending primarily upon the level of construction activity. Therefore, it is projected based on its historical average.
- ²⁵ This measure allows a public corporation that qualifies as an investment corporation to benefit from elements of the integration system, which are usually available only to private corporations.
- ²⁶ The increase in the 2000 tax expenditure is due to a significant increase in the capital gain dividends distribution. The projections decline starting in 2001 due to the reduction in the capital gains inclusion rate, and fall further in 2004 due to declining capital gains.
- ²⁷ This tax expenditure includes the additional 6 2/3 per cent refundable tax on investment income as well as, for years after 2000, the Part I tax paid on investment income in excess of the benchmark rate. The increase in this expenditure after 2001 results from the increase in the difference between the Part I tax on investment income and the benchmark rate.

Table 2

Corporate Income Tax Expenditures (*cont'd*)

- ²⁸ The cost of the Syncrude Remission Order ("Order Respecting the Remission of Income Tax for the Syncrude Project," P.C. 1976-1026, May 6, 1976 [C.R.C. 1978 Vol. VII, c. 794]) is published annually in the Public Accounts of Canada (ISBN 0-660-177792-7). The order expired on December 31, 2003.
- ²⁹ The impact of loss carry-overs can fluctuate significantly from year to year depending upon the amount of current and prior years' losses and the availability of income against which to apply these losses.
- ³⁰ The aviation fuel excise tax rebate, which was effective for calendar years 1997 to 2000, provided an excise tax rebate on the aviation fuel used by airline companies. The rebate was limited to \$20 million per year per associated group of companies. In order to receive a rebate, a company had to agree to reduce its income tax losses by \$10 for every \$1 of rebate.
- ³¹ This measure was repealed in 2000. To allow for an orderly restructuring of their operations, however, existing NROs were entitled to retain their status until the end of their last tax year that began before 2003.
- ³² Fifty per cent of these expenses are deductible for income tax purposes, given that a portion of meal and entertainment expenses is incurred to earn income and is therefore a legitimate business expense, while the remaining portion reflects personal consumption. The estimates and projections provided reflect the additional tax revenue that would be received if no deduction were allowed.
- ³³ Patronage dividends are somewhat discretionary and vary from year to year. The projections are generally lower after 2000 to take into account the phased-in reductions in the general corporate income tax rate. The large increase in the 2002 projection is due to larger-than-usual patronage dividends in that year.

Table 3
GST Tax Expenditures*

	Estimates				Projections			
	1999	2000	2001	2002	2003	2004	2005	2006
	(\$ millions)							
Aboriginal Self-Government								
Refunds for Aboriginal self-government ^{1,2}	S	S	S	S	S	S	S	S
Business								
Exemption ³ for domestic financial services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemption for ferry, road and bridge tolls ⁴	5	5	5	5	5	5	5	5
Exemption and rebate for legal aid services	20	20	25	25	25	30	30	30
Non-taxability of certain importations ⁵	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Rebates for foreign visitors on accommodations ⁶	79	79	86	86	75	81	87	92
Small suppliers' threshold	135	145	155	170	175	180	190	200
Zero-rating ⁷ of agricultural and fish products and purchases	S	S	S	S	S	S	S	S
Zero-rating of certain purchases made by exporters	S	S	S	S	S	S	S	S
Charities and Non-Profit Organizations								
Exemption for certain supplies made by non-profit organizations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Rebates for registered charities ¹	190	215	235	250	270	280	295	310
Rebates for non-profit organizations ¹	50	55	60	60	65	70	70	75
Education								
Exemption for education services (tuition) ⁴	360	365	390	410	435	450	475	500
Rebates for book purchases made by qualifying public institutions	30	30	30	35	35	35	40	40
Rebates for colleges ¹	60	65	80	85	85	90	95	100
Rebates for schools ¹	335	350	375	380	400	420	440	465
Rebates for universities ¹	135	150	180	205	215	225	240	250

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, available on the Department of Finance Web site at www.fin.gc.ca, for a discussion of the reasons for this.

Table 3

GST Tax Expenditures (cont'd)

	Estimates				Projections			
	1999	2000	2001	2002	2003	2004	2005	2006
	(\$ millions)							
Health Care								
Exemption for health care services ⁴	450	480	490	500	530	550	580	610
Rebates for hospitals ¹	315	340	390	395	420	440	460	485
Zero-rating of medical devices ⁴	115	130	140	150	155	165	170	180
Zero-rating of prescription drugs ⁴	400	440	475	510	535	555	585	620
Households								
Exemption for child care and personal services ⁴	135	135	135	135	140	145	155	160
GST/HST credit ⁸	2,915	2,965	3,005	3,070	3,150	3,240	3,360	3,455
Zero-rating of basic groceries ⁴	3,085	3,215	3,390	3,540	3,720	3,875	4,085	4,300
Housing								
Exemption for sales of used residential housing and other personal-use real property	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemption for residential rent (long-term) ⁴	1,100	1,105	1,085	1,110	1,180	1,230	1,300	1,360
Rebates for new housing ⁹	555	590	630	775	865	960	1,025	1,075
Rebates for new residential rental property ¹⁰	—	25	40	45	50	55	60	60
Municipalities								
Exemption for municipal transit ⁴	75	90	95	105	110	115	120	125
Exemption for water and basic garbage collection services ⁴	125	135	135	145	155	160	170	180
Rebates for municipalities ^{1,11}	615	645	700	720	760	1,360	1,445	1,505
Memorandum Items								
<i>Recognition of Expenses Incurred to Earn Income</i>								
Rebates to employees and partners ¹²	90	105	105	105	110	110	110	110
<i>Other</i>								
Exemption for quick method accounting	175	190	200	205	215	225	240	250
Partial input tax credits for meals and entertainment expenses ¹³	130	140	145	150	155	160	170	180

Table 3

GST Tax Expenditures (cont'd)**Notes:**

- ¹ The public sector body rebates are based on Canada Revenue Agency administrative data for the years up to and including 2002. The projected values for 2003 onwards are based on the Sales Tax Model of the Department of Finance. This projection methodology differs from that in last year's publication, and this explains some of the revisions in the projections for 2003 and later years.
- ² These refunds are paid to Aboriginal governments that have an agreement providing for a GST/HST refund for goods and services acquired for self-government activities.
- ³ Final consumers and businesses pay no tax on exempt goods and services. Vendors, however, are not entitled to claim input tax credits to recover the GST/HST paid on inputs to these products.
- ⁴ The Sales Tax Model used to generate these estimates and projections is based on the 2000 national input-output tables from Statistics Canada and the latest release of the National Income and Expenditure Accounts.
- ⁵ Certain importations are tax-free including, for example, duty-free personal importations by Canadian travellers.
- ⁶ The methodology for estimating this tax expenditure was derived as part of the review of the Visitors' Rebate Program conducted during 1997 and has been updated to reflect more recent information. The reduction in rebates for foreign visitors in 2003 reflects a reduction in the number of foreign visitors to Canada in that year.
- ⁷ Final consumers and businesses pay no tax on zero-rated goods and services. Vendors of zero-rated products are entitled to claim input tax credits to recover the GST/HST paid on inputs to these products.
- ⁸ Based on personal income tax data.
- ⁹ Estimates for the housing rebate are based on information provided by Statistics Canada. The increase in rebates for new housing in 2002 is larger than the increases in 2000 and 2001, reflecting higher numbers of new homes sold as well as increases in the average price of new homes in 2002. For 2003 and subsequent years, the increases in rebates for new housing reflect projected increases in expenditures on new homes.
- ¹⁰ The new residential rental property rebate was introduced in the 2000 budget for new construction or substantial renovation commencing after February 27, 2000.
- ¹¹ The rebate rate for municipalities was increased from 57.14 per cent to 100 per cent effective February 1, 2004.
- ¹² This item includes the apprentice vehicle mechanics' tools deduction.
- ¹³ Based on tax expenditure estimates and projections reported for the personal and corporate income tax systems.

PART 2
TAX EVALUATIONS AND RESEARCH REPORTS

**THE DISABILITY TAX CREDIT:
EVALUATION REPORT**

1. INTRODUCTION AND SUMMARY

The Government of Canada is committed to supporting full participation for persons with disabilities in Canadian society. As part of this commitment, the Government provides substantial direct assistance to persons with disabilities. Examples of this assistance include the Child Disability Benefit (a supplement to the Canada Child Tax Benefit), Canada Study Grants for students with disabilities to help with the costs of post-secondary education, funding for the Labour Market Agreements for Persons with Disabilities with the provinces and territories, Canada Pension Plan disability benefits, and disability pensions for veterans.

Another important aspect of the Government of Canada's commitment to persons with disabilities is ensuring that Canadians with disabilities are treated fairly by the tax system. Persons with disabilities and their supporting families may incur extra non-discretionary expenses related to their condition that reduce their ability to pay tax. Without recognition of these additional expenses, they would face the same tax bill as persons with identical income who do not have these costs. Tax fairness is therefore improved when the extra costs of disability are recognized in the tax system. Currently these expenses are recognized by three types of tax measures.

- Tax credits for specific expenses related to disability: the medical expense tax credit and the recently proposed disability supports deduction.
- The disability tax credit (DTC), which provides relief for extra everyday expenses incurred by persons with disabilities.
- Tax credits providing relief for individuals caring for family members with disabilities: the caregiver credit, the infirm dependant credit and the eligible dependant credit.

In the Government's response to the Seventh Report of the Standing Committee on Human Resources Development and the Status of Persons with Disabilities, it was agreed that an evaluation of the DTC would be conducted by the Department of Finance. This evaluation assesses whether the DTC is achieving its policy intent of contributing to tax fairness for persons with disabilities.

The evaluation shows that:

- The DTC improves tax fairness for over 400,000 Canadians with severe and prolonged disabilities, as well as their supporting families. While there are other tax measures that help persons with disabilities, only the DTC recognizes the extra spending on everyday items that reduce the ability to pay tax.
- An aggregate comparison suggests that the DTC is reaching its target population—Canadians with severe and prolonged disabilities. Estimates of the DTC recipient population based on Statistics Canada survey data are in the same range as the actual number of DTC recipients. It is not possible with available data, however, to determine whether a given individual reporting a severe and prolonged disability receives the DTC.

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- Better information will be required to assess whether the DTC dollar amount is set at the right level. Steps are being taken to try to develop better data on the extra spending on everyday items incurred by persons with disabilities.

The evaluation is organized as follows:

- Section 2 provides background information on the DTC and key disability-related tax measures.
- Section 3 discusses the importance of tax fairness for persons with disabilities and considers the DTC's policy role in this context.
- Section 4 uses survey data on activity limitations to assess whether the DTC is reaching its intended recipients.
- Section 5 discusses the issues associated with determining if the DTC amount is set at the right level.
- Section 6 presents the conclusions of the evaluation.
- An annex provides further detail on tax measures that benefit persons with disabilities.

2. DESCRIPTION OF THE DTC AND OTHER TAX MEASURES THAT BENEFIT PERSONS WITH DISABILITIES

This section describes the main federal tax measures that promote tax fairness for persons with disabilities and their supporting families (i.e. measures that recognize that individuals with disabilities and their families incur extra costs that reduce their ability to pay tax). It first provides background information on the DTC, and then describes other tax measures recognizing disability-related expenses and tax credits for individuals caring for family members with disabilities.¹

The Disability Tax Credit

The DTC is a non-refundable credit implemented to recognize that individuals with severe and prolonged impairments incur additional expenses related to their disability that reduce their ability to pay income tax.

Origins. The Canadian tax system has a long history of recognizing the additional expenses of disability. In 1944 a deduction was introduced for blind persons in recognition of their additional expenses. A few years later this deduction was extended to individuals confined to a bed or who use a wheelchair. In the mid-1980s the definition of eligibility for the disability deduction was extended to include individuals with a severe and prolonged mental or physical disability that markedly restricts a basic activity of daily living. The deduction was converted into a credit in 1988.

¹ In addition, some tax measures include special provisions for persons with disabilities. These measures are described in the Annex.

Eligibility. The DTC provides tax relief to individuals who, due to the effects of a severe and prolonged mental or physical impairment, are markedly restricted in their ability to perform a basic activity of daily living as certified by a qualified medical practitioner, or would be markedly restricted were it not for extensive therapy to sustain a vital function. Individuals are markedly restricted if, even with therapy or the use of appropriate devices and medication, they are blind or unable to perform a basic activity of daily living, or if they require an inordinate amount of time to perform the activity, all or substantially all of the time. The basic activities of daily living are: walking; feeding or dressing oneself; perceiving, thinking and remembering; speaking; hearing; and eliminating bodily waste.

In addition, since the 2000 tax year, an individual who receives therapy essential to sustain a vital function (e.g. dialysis treatment) may be eligible to claim the DTC.²

Eligibility is determined by an assessment conducted by a medical professional. While medical doctors can certify all types of impairments, other professionals are limited to certifying impairments in their respective fields, as summarized in the following table.

Table 1
Professional Certification of DTC Eligibility

Medical professional	Type of impairment
Medical doctors	All impairments
Optometrists	Vision
Audiologists	Hearing
Occupational therapists	Walking, feeding, dressing
Psychologists	Perceiving, thinking and remembering
Speech-language pathologists	Speaking

Parameters. In 2004 the DTC dollar amount is \$6,486. This represents a benchmark amount of extra everyday costs incurred by DTC-eligible individuals. No receipts are required to claim the credit—that is, all eligible persons may claim the full amount. The credit amount is multiplied by the lowest marginal tax rate (currently 16 per cent), and the person's federal tax liability is reduced by this amount (currently \$1,038). The credit amount is fully indexed to inflation.

Families with children under 18 who are eligible for the DTC are also eligible for a supplement in the amount of \$3,784 which, at a credit rate of 16 per cent, translates into an additional reduction in federal taxes of up to \$605. The supplement is reduced if child care deductions for this child exceed \$2,216 in 2004.

² The life-sustaining therapy must be administered at least three times each week for a total duration averaging not less than 14 hours a week, and it cannot reasonably be expected to be of significant benefit to persons who are not so impaired.

Since the DTC is non-refundable—it can be used to reduce taxes to zero, but it does not trigger a payment from the Government when the amount of the credit exceeds tax otherwise payable—it may be the case that an individual with a severe and prolonged disability does not have enough taxable income to make use of any or all of the DTC. In other words, their federal tax liability may be less than \$1,038 in 2004, even before the DTC is applied. If someone cannot use all of the DTC himself or herself, the unused portion can be claimed by a family member—either a spouse or another supporting relative. The list of family members eligible to receive a transfer of the DTC has been expanded in recent years, most recently in 2000.³

Number of DTC Claims. Most DTC-eligible individuals, even if they do not have enough taxable income to make any use of the credit, can be identified in tax data because they still claim the credit on their own tax return. Some, however, transfer the credit to a supporting relative but do not file their own tax return, and this requires some adjustment to the tax data.

In 2001, the most recent year for which tax return data are available, approximately 344,000 individuals claimed the DTC for themselves. It is possible to use data on the DTC supplement for children to determine that claims were made for 37,000 children with severe and prolonged disabilities. In addition, it is estimated that 20,000 DTC transfers were claimed on behalf of eligible adults who did not file their own tax return.⁴ In total, DTC claims were made by, or on behalf of, approximately 400,000 individuals with severe and prolonged impairments in 2001.

Age. It is widely known that disability rates increase with age. The 2001 Participation and Activity Limitation Survey indicated that seniors have the highest rate of disability in Canada (41 per cent).⁵ It is not surprising, then, that most DTC-eligible individuals are senior citizens. As Table 2 shows, of those DTC-eligible adults who claimed the DTC on their own tax return in 2001, 60 per cent were 65 or older and 40 per cent were 75 or older. By way of comparison, less than 20 per cent of all tax filers in 2001 were 65 or older.

³ A DTC transfer can be claimed on behalf of someone's (or their spouse's or common-law partner's) parent, grandparent, child, grandchild, brother, sister, aunt, uncle, niece or nephew. Brothers, sisters, aunts, uncles, nieces and nephews were added to this list by the 2000 changes.

⁴ Since tax return data include detailed information on spouses, it can be shown that in the case of 16 per cent of DTC spousal transfers, or approximately 11,800 claims, the DTC-eligible spouse did not claim the credit himself or herself. If this same 16 per cent ratio were applied to DTC transfers from other adult relatives, there would have been an additional 8,400 transfers with no corresponding self claims, for a total of 20,200.

⁵ Human Resources Development Canada, *Disability in Canada: A 2001 Profile*, p. 8.

Table 2
DTC Self Claims by Age, 2001

Age of tax filer	Number of DTC self claims	% of DTC self claims	% of all tax filers
< 25	4,900	1.5	13.6
25-34	12,800	3.7	16.8
35-44	24,500	7.1	21.5
45-54	39,200	11.4	18.6
55-64	54,900	16.0	12.4
65-74	70,400	20.5	9.3
75-84	86,500	25.2	5.8
85 +	50,600	14.7	2.0
Total	343,800	100.0	100.0

Note: Numbers rounded to nearest hundred. Percentages may not add to 100% due to rounding.

Income. Individuals who claimed the DTC for themselves in 2001 had below average incomes (Table 3).⁶ There is, however, a substantial difference by age: while the average income of younger self claimants was well below the income of other persons under 65, the incomes of older self claimants in 2001 were not substantially different than the incomes of other seniors. The data suggest that most seniors with a disability developed it relatively late in life. Consequently, they would have approximately the same work history and income as the total population over 65. In contrast, DTC-eligible individuals under 65 have a lower rate of labour force participation and hence lower incomes, on average, relative to other individuals in the same age group.

Table 3
Average Total Income by DTC Status and Age, 2001

Age	Average total income for DTC self claimants	Average total income for others
All ages	\$24,612	\$31,862
Under 65	\$20,881	\$32,719
65 and older	\$27,062	\$27,517

Table 3 also shows that DTC self claimants 65 and older have substantially higher incomes than younger persons with disabilities. The biggest difference by age occurs for individuals with less than \$10,000 in income: almost one-third of individuals under 65 making a DTC self claim were in this income category, compared to less than 10 per cent for individuals 65 and over (Table 4). This difference at low income levels likely reflects the availability of Guaranteed Income Supplement payments to persons 65 and over.

⁶ The measure of income used in this analysis is personal income, and does not take account of the financial support that DTC-eligible individuals may receive from family members. In addition, this measure excludes various forms of non-taxable income that are not reported on income tax returns, such as disability insurance benefits.

The lower share of seniors having incomes less than \$10,000 translates as well into a higher share at all income levels above \$10,000, with particularly large differences for incomes up to \$30,000.

Table 4
DTC Self Claims by Age and Income, 2001

Total income	Under 65		65 and older		Overall	
	Number	% of <65	Number	% of 5+	Number	% of overall
< \$10,000	43,800	32.2	15,500	7.4	59,300	17.3
\$10,000 - \$20,000	44,600	32.7	91,400	44.0	135,900	39.5
\$20,000 - \$30,000	20,000	14.7	48,900	23.5	68,900	20.0
\$30,000 - \$40,000	11,100	8.1	23,200	11.2	34,300	10.0
\$40,000 - \$80,000	14,600	10.7	23,300	11.2	38,000	11.0
\$80,000 +	2,100	1.5	5,200	2.5	7,300	2.1
Total	136,300	100.0	207,500	100.0	343,800	100.0

Note: Numbers rounded to nearest hundred. Percentages may not add to 100% due to rounding.

Tax Relief. In 2001 the DTC provided a reduction in federal taxes of \$330 million to Canadians with severe disabilities and their families, up substantially from \$275 million in tax relief in 2000. The significant enrichment of the credit amount, from \$4,293 in 2000 to \$6,000 in 2001, was primarily responsible for this increase. This estimate of tax relief does not include the additional tax relief provided through provincial disability tax credits, which is typically half of the federal amount.

Other Tax Measures That Benefit Persons With Disabilities

Medical Expense Tax Credit

The medical expense tax credit (METC) is a non-refundable credit that recognizes the effect of above-average medical expenses on an individual's ability to pay income tax. The list of eligible METC expenses is quite broad and is regularly reviewed and expanded in light of new technologies and developments. The METC provides a substantial and rapidly growing amount of tax relief to Canadians. In 2001 the total reduction in federal taxes provided by the METC was \$570 million.

Although the METC is a measure of general application for all taxpayers, it plays an important role in recognizing out-of-pocket disability expenses. In 2001 the average METC claim for a family making a DTC claim was \$1,123, almost five times higher than the average METC claim of \$248 for families with no DTC claim (Table 5). Further, families with a DTC claim were more than twice as likely to make an METC claim than families with no DTC claim.

Table 5
METC Claims by DTC Status and Age, 2001

	Overall		< 65		65+	
	DTC	No DTC	DTC	No DTC	DTC	No DTC
Average METC claim	\$1,123	\$248	\$682	\$146	\$1,568	\$768
% with METC claim	33.0%	13.7%	28.0%	11.1%	38.1%	27.3%

The high average METC claim for families with a DTC claim reflects, in large measure, the inclusion of disability-related items in the list of expenses eligible for the METC.⁷ Examples of such items include attendant care,⁸ fees paid to a group home, tutoring and talking textbooks, communications devices and services, renovations to make a home more accessible, expenses paid to move to a more accessible home, vehicle modifications and guide dogs. More details on the METC and how it has been expanded in recent years to include more items purchased by persons with disabilities are provided in the Annex.

Disability Supports Deduction

The 2004 budget proposed the introduction of a deduction for disability supports for employment and education. The effect of this deduction will be to ensure that no income tax will be payable on income (including government assistance) used to pay for these expenses. Eligible expenses for this new deduction will include, for example, note-taking and tutoring services, sign language interpretation fees, and attendant care purchased for purposes of employment or education. While expenses eligible for the disability supports deductions are generally also eligible for the METC, the expenses can only be claimed under one of the two measures.

Tax Credits for Caregivers

Individuals caring for an adult family member with a disability, other than their spouse, may be able to claim a non-refundable tax credit in recognition of the additional expenses they incur.⁹ There are three tax credits associated with caregiving: the caregiver credit, the infirm dependant credit and the eligible dependant credit. Generally, to be able to claim one of these three credits, the adult family member for whom someone is caring has to be “infirm” (except in the case of the caregiver credit, where a dependent parent or grandparent age 65 or more does not have to be infirm). In addition, the dependant’s

⁷ These expenses can only be claimed if someone is eligible for the DTC.

⁸ An individual with a severe and prolonged disability who claims the DTC can claim up to \$10,000 in nursing home or attendant care expenses (up to \$20,000 in the year of death). If this person’s expenses for attendant care are higher than \$10,000, he or she also has the option to include all of these expenses in the METC claim, but then the DTC cannot be claimed.

⁹ The additional expenses associated with caring for a child under 18 with a disability are essentially recognized by the DTC supplement for children. There are also special child care deduction provisions for children with disabilities; these provisions are described in the Annex.

income must not exceed certain levels. While there is no specific definition of infirmity in tax legislation, a broader definition is implied than the severe and prolonged impairments that serve as the basis of DTC eligibility.¹⁰

The three credits operate side-by-side as follows:

- If the infirm dependant does not live in the caregiver's home, the infirm dependant credit is the only credit available.
- If the infirm dependant lives in the caregiver's home and the caregiver has a spouse or common-law partner that they live with or support, the only option is the caregiver credit.
- If the caregiver and infirm dependant live in the same home and the caregiver does not have a spouse or common-law partner that they live with or support, the caregiver may be able to claim the eligible dependant credit instead of the caregiver credit. While the eligible dependant credit potentially offers a higher amount of tax relief than the caregiver credit, it cannot be claimed for as many types of relatives. Further, the eligible dependant credit is subject to phase-out provisions that make it no more generous than the caregiver credit beyond a certain income range.

In addition, a DTC-eligible dependant may choose to transfer any unused portion of their DTC to the caregiver. Finally, as proposed in the 2004 budget, a taxpayer can claim medical expenses paid on behalf of a dependent relative that are in excess of the relative's net income threshold, subject to a maximum claim of \$5,000.

3. THE DTC'S POLICY ROLE

An important part of this evaluation is assessing how the DTC contributes to tax fairness by recognizing the impact of additional disability-related costs on the ability to pay tax.

There are two notions of equity that are important in the tax system: vertical equity and horizontal equity. Vertical equity means that individuals who are better off should pay more in taxes. Horizontal equity means that two individuals in similar circumstances should pay similar amounts of tax. The concept of horizontal equity provides the rationale for the DTC. Because of their condition, persons with disabilities incur additional expenses that do not contribute to consumption enjoyment and that effectively reduce their disposable income. Without special recognition, however, their tax bill would be the same as a person with identical income who did not face these additional costs. By allowing an income tax credit for additional expenses that do not contribute to consumption enjoyment, the DTC establishes greater horizontal equity between people with and without disabilities.

¹⁰ Income tax interpretation bulletin IT-513R, published by the Canada Revenue Agency, notes that there is no specific definition for the term "mental or physical infirmity," and therefore the term "takes its ordinary meaning." This interpretation bulletin also notes that a temporary illness is not classified as an infirmity.

Disability gives rise to different types of additional expenses. Some of the extra costs of disability are for items, such as wheelchairs and full-time attendant care, that are only needed by persons with disabilities. All of the money spent on these items can be considered extra costs of disability. These expenses are relatively easy to document and are generally recognized by the tax system, notably under the METC.

Other aspects of the extra costs of disability, however, are of a different nature. Individuals with disabilities also spend higher than average amounts on everyday goods and services, such as utilities, housing, clothing, household goods and transportation. For example, someone with a disability may spend more on utilities because they have medical devices that require electricity, or because reduced mobility makes them more sensitive to temperature and leads to higher heating bills.

These additional costs generally represent out-of-pocket expenses for persons with disabilities but are not recognized by the METC. This is because, in general, there is no way for someone with a disability to quantify all of these incremental costs and include the total on their METC claim. To improve fairness, therefore, the tax system needs a measure that provides general recognition for the extra expenses of everyday living incurred by Canadians with severe and prolonged disabilities. This is the DTC's policy role.

Canada is not alone in trying to ensure that the tax system treats persons with disabilities fairly. Some countries, including the United States, Australia and France, also offer tax measures that recognize the negative impact of additional disability expenses on the ability to pay tax. Other countries, such as the United Kingdom, offer no general tax measure for persons with disabilities. In the United Kingdom, however, persons with disabilities may receive some help with their extra costs through a direct non-taxable benefit, so there is less of a need for a tax credit that serves this purpose.

4. IS THE DTC REACHING ITS TARGET POPULATION?

Assessing whether the DTC is reaching its target population is an important part of an evaluation of its effectiveness. It is possible to generate estimates of the DTC-eligible population using Statistics Canada surveys that ask Canadians about their activity limitations. These surveys include data on income, which can be used to determine how many of these eligible individuals, together with their supporting families, can make use of the credit. These estimates of the potential DTC recipient population can then be compared with the number of DTC recipients indicated by tax return data. It is not possible, however, to determine on an individual level whether a given person with a DTC-eligible activity limitation also reports receiving the DTC, and vice versa. The best that can be done is to compare survey estimates of the DTC-eligible population with the actual number of DTC claims at an aggregate level.

Estimating the DTC-Eligible Population

The first step is to produce an independent estimate of how many Canadians, regardless of their income, have severe and prolonged activity limitations that make them eligible for the DTC.¹¹ Statistics Canada has a number of surveys that ask individuals about different types of activity limitations. The first survey used in this analysis, the 2001 Participation and Activity Limitation Survey (PALS), is a survey of Canadians with disabilities.

All of the DTC-eligible population cannot, however, be captured using only PALS since that survey interviews only Canadians with disabilities living in private households. Some individuals with severe and prolonged disabilities live in nursing homes, group homes for persons with disabilities and other types of health institutions. If these individuals are excluded from the estimates, the size of the DTC-eligible population will be underestimated, and probably by a significant amount. As it turns out, Statistics Canada has another survey, the 1996–1997 National Population Health Survey (NPHS), which asks individuals living in health institutions about different types of activity limitations.¹² Since these two surveys cover mutually exclusive subpopulations and they both ask questions about activity limitations, they can be combined to produce an overall estimate for the DTC-eligible population.¹³

The match between the survey questions and the DTC eligibility criteria is imperfect. For a given activity limitation, the choice is often between one set of survey responses that may fail to capture everyone eligible for the DTC and another set of responses that may include some individuals who should not be considered eligible. To take account of this uncertainty, two estimates, one low and one high, are generated for each activity limitation, and by extension for the overall count. The underlying DTC-eligible population should be interpreted as lying somewhere between these low and high estimates.

Table 6
Estimates of the DTC-Eligible Population, 2001

	Low	High
DTC-eligible population in households (PALS)	353,000	559,000
DTC-eligible population in health institutions (NPHS)	133,000	166,000
Adjustment for missing activity limitations	12,000	20,000
Total	498,000	745,000

Note: Numbers rounded to nearest thousand.

¹¹ Since these survey estimates will be compared with 2001 tax return data, the DTC eligibility criteria in effect in 2001 are used as the basis for comparison.

¹² The 1996–1997 NPHS Health Institutions Survey is the most recent survey of this population that provides a representative cross-section.

¹³ The DTC certification form considers an activity limitation to be prolonged if it lasts for at least one year. PALS, however, asks individuals about activity limitations that have lasted, or that are expected to last, six months or more. The NPHS does not specify an amount of time when asking about activity limitations, but rather refers to “a person’s usual abilities.” It is possible, then, that the estimates of the DTC-eligible population derived from the survey data are too high, since the surveys consider a somewhat shorter timeframe than is used to determine DTC eligibility.

Table 6 presents the estimates of the DTC-eligible population. For individuals living in private households, the low estimate of the DTC-eligible population is 353,000, and the high estimate is 559,000. The NPHS indicates that there are many DTC-eligible individuals living in health institutions. For this group, the low estimate is 133,000 and the high estimate is 166,000.¹⁴

Both the PALS and NPHS surveys have questions on most, but not all, of the activity limitations covered by the DTC. Neither survey has direct questions on eliminating bodily waste or life-sustaining therapy. The estimates therefore do not include individuals who would qualify for the DTC solely under one of these criteria (although those who also experience one of the activity limitations captured by the survey would already be in the count). Consequently, it is necessary to adjust the estimates of the DTC-eligible population for these missing activity limitations.

To adjust the estimates of the DTC-eligible population, it is possible to use tax return data, which provides some information on the types of activity limitations experienced by individuals claiming the DTC. In 2001 between 2.3 and 2.7 per cent of individuals who claimed the DTC listed eliminating bodily waste and life-sustaining therapy as their only activity limitations. Assuming that the same ratios apply to the survey estimates, it follows that the estimates of the DTC-eligible population should be adjusted by 12,000 to 20,000.

Combining the two sets of estimates and adding an adjustment factor to account for missing activity limitations yields overall estimates of the DTC-eligible population that range between 498,000 and 745,000. The actual number of DTC-eligible individuals is likely somewhere between these two numbers.

Estimating the Potential DTC Recipient Population

Since the DTC is an ability to pay tax measure, an estimate of the size of the DTC recipient population needs to take account of who can make use of the credit. More specifically, for an individual with a severe and prolonged disability to be a DTC recipient, they need to be in a position where they would be paying tax or have a family member in a position to benefit from a transfer of the credit.

The first step in estimating the DTC recipient population is to determine how many DTC-eligible individuals have enough income to make use of the credit directly. Both PALS and the NPHS include information on the individual's total income. Ideally, however, there would be data available on the individual's taxable income, since some forms of income, such as social assistance and the Guaranteed Income Supplement, are not taxable. By making adjustments for non-taxable components of income and taking account of basic personal credits that can be claimed, it is possible to use these data sets

¹⁴ Since the NPHS Health Institutions Survey was conducted in 1996-1997, the estimates are adjusted for population growth between this period and 2001. Since the large majority of individuals in health institutions are senior citizens, the adjustment factor used is based on growth in the 65+ population.

to estimate the number of taxable DTC-eligible individuals.¹⁵ As Table 7 shows, the low estimate of the number of taxable DTC-eligible individuals is 214,000 and the high estimate is 331,000.

Table 7
Estimates of the Potential DTC Recipient Population, 2001

	Low	High
DTC-eligible population (from Table 6)	498,000	745,000
DTC-eligible individuals who are taxable	214,000	331,000
Transfers (assuming 0.43 ratio of transfers to taxable individuals)	92,000	142,000
Total DTC recipient population	306,000	473,000

Note: Numbers rounded to nearest thousand.

The second step in this estimation process is to determine how many DTC-eligible individuals who cannot use the DTC themselves can transfer the credit to a family member who is taxable. Neither data set, however, includes enough information to permit a precise estimate for the number of transfers. On the one hand, PALS includes a variable on household income, but no information on family members living outside the household. On the other hand, the NPHS provides no information on the income of other family members.

Since these surveys do not include any direct information on transfers, the next best option is to study tax return data to learn about the ratio of transfers to taxable DTC recipients. In 2001, out of the claims made by or for 400,000 DTC-eligible individuals, 280,000 were claims directly made by taxable individuals (or taxable parents), and 120,000 were for transfers from non-taxable adults with disabilities. This translates into a ratio of 0.43 transfers for each taxable individual. It seems reasonable to assume that the same ratio of transfers to taxable individuals holds for the survey data as well. This assumption would yield estimates of the number of DTC transfers that range between 92,000 (low) and 142,000 (high).

Combining the estimates of the number of taxable DTC-eligible individuals and the number of transfers produces measures of the potential DTC recipient population. As Table 7 indicates, the estimates of the DTC recipient population range between 306,000 and 473,000.

¹⁵ For individuals under 65, \$10,000 of total income is used as the threshold below which individuals are non-taxable and above which individuals are taxable. For individuals 65 or older who are eligible for the age credit, \$15,000 of total income is used as the threshold for taxable status. An analysis of tax return data, which also includes information on taxable income, indicates that these thresholds work well. For children, data on parents' income are used. Technically speaking, virtually all DTC-eligible children transfer the credit to their parents or another family member, but these claims do not count as transfers in this discussion. The discussion of transfers that follows therefore pertains to DTC-eligible adults who can transfer the credit to a family member.

Comparison With the Number of DTC Recipients

The next step in this analysis is to turn to tax return data to determine the number of DTC recipients. In Section 2, it was estimated that in 2001, DTC claims were made by or on behalf of 400,000 individuals with severe and prolonged impairments. This estimate leaves out some potential DTC recipients who are better off forgoing the DTC and including all of their attendant care or nursing home expenses in their METC claim. Since these individuals are being counted in the analysis of survey data on activity limitations, they should be included in this comparison. While there is no direct information on how many potential DTC recipients choose this option, tax return data on METC claims suggest that the total number in this category is approximately 22,000.¹⁶ The resulting estimate of the total number of DTC recipients, both actual and potential, in the 2001 tax year is therefore 422,000.

The number of DTC recipients falls well within the range of estimates of the DTC recipient population based on survey data. Sensitivity analysis indicates that even when reasonable alternative assumptions are chosen for the number of transfers, the independent estimates of the recipient population are consistent with the actual number of DTC claims. This comparison indicates that, on the whole, Canadians with severe and prolonged activity limitations are making use of the DTC. This does not rule out the possibility that some potential recipients are not receiving the credit, or that some recipients are not in fact eligible. The analysis, however, suggests that there is no overall problem with take-up of this measure.

5. THE CHALLENGE OF MEASURING THE EXTRA COSTS OF DISABILITY

To determine whether the DTC is achieving its stated policy purpose, it is necessary to assess whether the dollar amount of the credit (\$6,486 in 2004) is appropriate. That is, on average, do DTC recipients incur approximately this amount in extra out-of-pocket costs for everyday items?

Estimating the additional everyday expenses of disability is extremely challenging. It is not simply a question of asking individuals with severe disabilities what they spend on, for example, wheelchairs or full-time attendants, and defining all of the money spent on these items as extra costs. Rather, it requires understanding the difference between what individuals with severe disabilities currently spend on everyday items, such as housing, and transportation, and what they would have spent on these items if they did not have a

¹⁶ With detailed data from previous years on the composition of METC claims, it is possible to show how many individuals with net METC claims above \$16,000 made these claims for attendant care or nursing home expenses (individuals with attendant care expenses below this amount would be better off claiming \$10,000 of expenses under the METC and the DTC). Taking individuals who did not claim the DTC, it can be shown that 83 per cent of seniors with high METC claims and 20 per cent of those under 65 with high METC claims had attendant care or nursing home expenses. These percentages can be applied to the 2001 data on METC claims.

disability. For persons with disabilities to provide direct measures of these incremental costs, they would have to know the difference between what they currently spend on different items and what they would have spent in the absence of their condition.

The other alternative is to try to come up with indirect measures of the extra everyday costs of disability. To do this would require a data set with information on spending patterns for persons both with and without disabilities. This would make it possible to analyze whether persons with disabilities as a group spend more than those without disabilities, all else equal, in different categories. For example, such an analysis could examine whether individuals with disabilities spend more on household goods than others, taking account of other differences between the two groups. If they spend more on average on household goods, the difference in spending levels would be defined as an extra cost of disability. This approach would produce an estimate of the average level of the additional expenses of disability in a given category, and these extra costs could then be aggregated across different categories.

Even with such a data set, there would be challenges associated with measuring the extra expenses of disability. One unavoidable issue will be the heterogeneity of the population with a disability. Different types of disability often cause some individuals to spend more than average and others to spend less than average in a given category. For example, while some individuals with disabilities may spend more on transportation, others may be unable to leave their home and may therefore spend less on transportation. Persons who spend less than average in a given category because of their disability should not be counted, but there is no way to remove them from the calculation. As a result, persons with disabilities spending less than average would drag down the average for those with disabilities as a whole. As a result, indirect estimates of the extra expenses of disability would likely be understated to some extent, and it is impossible to say by how much.

The Limitations of Current Data Sources

At the present time, there is no existing Canadian data set that allows the estimation of the extra everyday costs of disability. One natural starting point is Statistics Canada's Survey of Household Spending, Canada's principal source of information on what families spend on different items. However, the Survey of Household Spending does not currently ask any questions that indicate who has a disability.

Another potential resource for examining disability expenses is Statistics Canada's 2001 Participation and Activity Limitation Survey (PALS), Canada's main source of information on disability. PALS asks individuals with disabilities about their out-of-pocket spending in six different categories:

- Prescription and non-prescription drugs
- Aids and specialized equipment
- Health care and social services
- Help received
- Transportation
- Home modifications

Most of the expenditure categories in PALS refer to expenses that can be claimed under the METC; whereas this evaluation requires an analysis of the extra everyday expenses of disability for which receipts cannot be supplied. The only categories that relate to the DTC are non-prescription drugs, occasional help (i.e. housekeeping) and transportation. There are no questions in PALS about additional expenses for regular housing payments, utilities, clothing or household products. Consequently, using PALS in its current form would yield an underestimate of the extra everyday costs of disability.

Steps Being Taken to Develop Better Data

Since there is no appropriate data set, it is not currently possible to begin to develop a good estimate for how much DTC recipients incur in extra everyday costs. Given the importance of understanding the extra costs of disability, discussions are underway with Statistics Canada to develop better data.

One option being considered is adding questions on disability to the Survey of Household Spending. It may also be possible to modify the next version of PALS, currently scheduled for 2006, to try to measure the extra everyday costs associated with disability.

The discussion above suggests that no data set, even with modifications, will provide a complete measure of the extra everyday costs of disability.

6. CONCLUSION

The DTC is one of many measures that contribute to tax fairness for persons with disabilities. These measures provide tax relief for specific disability-related expenses (e.g. the METC) and for individuals caring for family members with disabilities. The unique role of the DTC is to provide tax relief for the additional everyday expenses incurred by individuals with severe and prolonged impairments and their supporting families. These expenses cannot be documented for tax purposes, so there is a need for a measure that provides general recognition of the negative impact of these extra everyday costs on the ability to pay tax.

This report shows that, based on existing eligibility criteria, the DTC seems to be reaching its target population. Independent estimates of the DTC recipient population, based on Statistics Canada survey data on activity limitations, are consistent with tax return data on the number of DTC recipients.

Finally, given the difficulty of quantifying the extra everyday costs of disability with current data, it is not possible to determine whether the DTC dollar amount is set at the right level. Steps are being taken to try to develop better data on the extra everyday costs of disability.

ANNEX
GOVERNMENT OF CANADA TAX MEASURES
THAT BENEFIT PERSONS WITH DISABILITIES

Summary of Measures

Personal Income Tax

Tax relief for persons with disabilities and those who care for them

- Disability tax credit
- Disability supports deduction (proposed in the 2004 budget)
- Caregiver credit
- Infirm dependant credit

Benefits delivered through the tax system

- Refundable medical expense supplement
- Child Disability Benefit

Measures with special benefits for persons with disabilities

- Medical expense tax credit
- Eligible dependant credit
- Child care expense deduction
- Education credit
- Lifelong Learning Plan
- RRSP/RRIF rollover
- Registered education savings plans
- Home Buyers' Plan

Corporate Income Tax

- Expensing of capital expenses incurred to adapt buildings

Customs Tariff

- Duty-free entry of disability-related goods

Goods and Services Tax

- Special treatment of goods and services used by persons with disabilities

Excise Tax on Gasoline

- Refund for persons with a mobility impairment

Personal Income Tax

Tax Relief for Persons With Disabilities and Those Who Care for Them

Disability Supports Deduction

Proposed in the 2004 budget, this measure replaces the attendant care deduction. Under the attendant care deduction, taxpayers eligible for the DTC who required attendant care in order to earn business or employment income or, after 2000, to attend a designated educational institution or a secondary school were able to deduct the cost of that care. The proposed disability supports deduction will recognize attendant care as well as other disability supports expenses incurred for education or employment purposes, unless they have been reimbursed by a non-taxable payment (e.g. from an insurance company). Individuals will not have to be eligible for the DTC in order to claim the deduction.

For those earning employment or business income, the disability supports deduction will be limited to the lesser of:

- the amounts paid for eligible expenses; and
- the taxpayer's earned income.

For those attending school, the deduction will be limited to the lesser of:

- the amounts paid for eligible expenses; and
- the taxpayer's earned income plus the least of:
 - the taxpayer's non-employment income net of other deductions (i.e. the difference between the taxpayer's net income without taking the proposed disability supports deduction into account and the taxpayer's earned income);
 - \$375 times the number of weeks in school; and
 - \$15,000.

In other words, the deduction will generally be limited to the lesser of the amounts paid for eligible expenses and the taxpayer's earned income, which includes wages, self-employment income, and scholarships.

For students, the deduction will be limited to the lesser of the amounts paid for eligible expenses and the student's earned income plus an additional amount equal to the lesser of \$375 times the number of weeks in school (up to a maximum of 40 weeks) and the student's other income net of other deductions.

The limit for students allows those who pay for disability supports in order to attend school with income other than earnings or scholarships to benefit from the deduction.

The effect of the new deduction will be that no income tax will be payable on income (including government assistance) used to pay for these expenses, and that this income will not be used in determining the value of income-tested benefits.

Caregiver Credit

The caregiver credit, introduced in 1998, recognizes that people who support certain adult relatives in their own home often incur expenses that reduce their ability to pay income tax. Eligible relatives include infirm dependent relatives who are 18 or older, and any parent or grandparent 65 years of age or over (regardless of infirmity).¹⁷ For 2004 the maximum credit is \$605 (16 per cent of \$3,784). The credit is reduced when the dependant's net income exceeds \$12,921 and is fully phased out when the dependant's net income reaches \$16,705.¹⁸

Infirm Dependant Credit

The infirm dependant credit recognizes that individuals providing support to an infirm adult relative who lives in a separate residence may incur expenses that reduce their ability to pay income tax. This non-refundable measure applies to the same infirm adult relatives as the caregiver credit and generally provides the same amount of tax relief (up to \$605, or 16 per cent of \$3,784). The infirm dependant credit, however, is phased out at lower income levels; it is reduced when the dependant's net income exceeds \$5,386, and is fully phased out when this net income reaches \$9,152.

Benefits Delivered Through the Tax System

Refundable Medical Expense Supplement

Introduced in 1997, the refundable medical expense supplement recognizes that the loss of subsidies for disability-related supports under provincial social assistance for working adults with low incomes and above-average medical expenses can act as a barrier to participation in the labour force. This refundable tax credit supplements relief provided through the medical expense tax credit. Consequently, persons who claim the medical expense tax credit may also be able to claim this supplement, and any disability-related expenses claimed as medical expenses also qualify for the supplement.

To be eligible for the supplement, the person's net income from employment¹⁹ must exceed \$2,809. For 2004 the maximum supplement is 25 per cent of the allowable portion of expenses that can be claimed under the medical expense tax credit and 25 per cent of the amount claimed under the disability supports deduction announced in the March 2004 budget, up to a limit of \$562. To target relief to working adults with low incomes, the supplement is reduced by 5 per cent of net family income in excess of \$21,301. The supplement is refundable to the extent that the taxpayer's total income tax payable is less than the amount of the supplement. The supplement is fully indexed to inflation.

¹⁷ For the purposes of the caregiver credit, an infirm dependant relative could be someone's (or their spouse or common-law partner's) parent, grandparent, brother, sister, aunt, uncle, niece or nephew.

¹⁸ The credit amounts and income thresholds for these three credits are fully indexed to inflation.

¹⁹ The sum of employment income, net of deductions for registered pension plans, union dues and other employment expenses, plus net self-employment income.

Child Disability Benefit

Introduced in 2003, the Child Disability Benefit (CDB), a supplement to the federal Canada Child Tax Benefit, assists low- and modest-income families with the extra expenses associated with the care of children who are eligible for the DTC.

The maximum benefit for July 2004 to June 2005 is \$1,653 per child with a disability under 18 years of age. The full CDB is provided for each eligible child to families having a net income below the amount at which the National Child Benefit supplement is fully phased out. For a family with one child with a disability, the maximum benefit is provided to families with net incomes of less than \$35,000. These thresholds are higher for families with more DTC-eligible children. The CDB is reduced as net family income exceeds the family's threshold. The CDB amount and income thresholds at which benefits begin to be reduced are indexed to inflation.

Measures With Special Benefits for Persons With Disabilities

Medical Expense Tax Credit

The medical expense tax credit (METC) is a non-refundable credit that recognizes the effect of above-average medical expenses on an individual's ability to pay income tax. For 2004 the credit equals 16 per cent of qualifying medical expenses in excess of a net income threshold, which is the lesser of \$1,813 or 3 per cent of net income (the \$1,813 threshold is fully indexed to inflation). A person may claim medical expenses incurred by themselves, their spouse or their minor children. Taxpayers are also able to claim qualifying medical expenses paid on behalf of other dependent relatives that are in excess of the relative's net income threshold, subject to a maximum claim of \$5,000.²⁰

The list of eligible METC expenses is quite broad and is regularly reviewed and expanded in light of new technologies and developments. In particular, there have been a substantial number of disability-related expenses added to the list of eligible METC expenses in recent years.

²⁰ These particular arrangements for claiming the METC on behalf of dependants were proposed in the 2004 budget.

Recent Additions of Disability-Related Expenses to List of Eligible METC Expenses

1997

- 50 per cent of cost, up to \$1,000, of air conditioner necessary to help individual cope with severe chronic ailment, disease or disorder
- 20 per cent of cost, up to \$5,000, of van adapted for transportation of individual in wheelchair
- Sign language interpreter fees
- Expenses incurred during move to accessible housing
- Altering driveway to facilitate access to bus (for individuals with severe and prolonged mobility impairment)
- An increase in the part-time attendant care limit from \$5,000 to \$10,000.

1998

- Training expenses for caregivers

1999

- Care and supervision of persons with severe and prolonged impairments living in group home
- Therapy for persons with severe and prolonged impairments
- Tutoring for persons with learning disabilities (or other mental impairments)

2000

- Reasonable expenses of adapting a new home (i.e. during construction of the home) to the needs of a person with a disability

2003

- Real-time captioning services for persons with a hearing or speaking impairment
- Note-taking services for persons with a mental or physical impairment
- Voice-recognition software for individuals with a physical impairment

Eligible Dependant Credit

If someone who does not have a spouse is caring for an infirm adult relative in their own home, they may be able to claim the eligible dependant credit. It is not possible to claim the full amount of both this credit and the caregiver credit. The eligible dependant credit has a maximum value of \$1,088 (16 per cent of \$6,803), which is higher than the caregiver credit. However, it is phased out at lower income levels; the phase-out starts at \$681 and ends at \$7,484. In addition, the eligible dependant credit can only be claimed for infirm dependent children, grandchildren, brothers and sisters, as well as any child under 18 or any parent or grandparent.

Child Care Expense Deduction

Introduced in 1972, the child care expense deduction recognizes that taxpayers, their spouses or common-law partners often incur significant costs for child care to enable them to work or attend school. Child care expenses can act as a barrier to participation in the labour force, with their deductibility reducing this barrier. Furthermore, children with a disability or infirm children often require specialized care.

A supporting person may deduct the lesser of the expense limit, two-thirds of earned income,²¹ or the actual amount of child care expenses incurred. If the child is eligible for the DTC, then the expense limit is \$10,000 regardless of the child's age. For a child over 16 years of age who has a disability or is infirm, but does not qualify for the DTC, the expense limit is \$4,000. Otherwise, the expense limits are \$7,000 for a child less than 7 years of age and \$4,000 for a child between 7 and 16 years of age.

Generally, only the supporting person with the lower net income can make a claim and this supporting person must also live with the child. In addition, if the child for whom the expenses are being claimed is dependent on either supporting person, but is not the child of either individual, then the child's net income must be less than the basic personal amount.

Since it reduces taxable income, the deduction may increase the disability amount that can be transferred to a spouse or to a relative who provides dependant care. However, it also reduces the amount of the disability supplement for a child with a disability less than 17 years of age.

Education Credit

Students can claim the education credit for each month of study at post-secondary institutions or in occupational training institutions that have been certified by the Minister of Human Resources and Skills Development. The credit is 16 per cent of \$400 per month of full-time study, or \$120 per month of part-time study. The credit is provided in recognition of non-tuition costs of post-secondary education, such as the costs of textbooks. Persons with disabilities, however, are often unable to attend a post-secondary institution on a full-time basis because of their disability.

Consequently, to improve their education opportunities, the full-time education credit is available to individuals who attend a qualifying post-secondary institution on a part-time basis and who are either eligible for the DTC or certified as being mentally or physically impaired for purposes of this credit.

²¹ Earned income includes employment and self-employment income, scholarships, bursaries, fellowships, research grants, amounts received under a federal program to encourage employment and disability benefits under the Canada or Quebec Pension Plan.

Unused education amounts may be either carried forward for use by the student in a subsequent taxation year or, together with the tuition amount, transferred, to a maximum of \$5,000, to the student's spouse, or to a parent or grandparent. However, amounts carried forward cannot be transferred at a later date.

Moreover, if even a portion of the education amount can be used by a student, then that portion must be used before any excess amount can be carried forward or transferred, and before the non-refundable medical expense tax credit can be used.

Lifelong Learning Plan

Introduced in 1999, the Lifelong Learning Plan allows any individual to make a tax-free withdrawal of up to \$20,000 over four years from their registered retirement savings plan (RRSP) to help finance their education or training, or that of their spouse. Funds withdrawn for this purpose must be returned to the RRSP in equal annual instalments over no more than 10 years.

In general, this provision applies only to full-time students. However, people with disabilities are often unable to attend a post-secondary institution on a full-time basis because of their disability. Consequently, the Lifelong Learning Plan extends eligibility to part-time students who are either eligible for the DTC or certified as being mentally or physically impaired for purposes of the education credit.

RRSP/RRIF Rollover

When the annuitant under an RRSP or registered retirement income fund (RRIF) dies, the value of the RRSP or RRIF is generally included in computing the deceased's income for the year of death. However, preferential tax treatment on RRSP or RRIF distributions made after death is provided in certain cases, including where the proceeds are distributed to a child or grandchild who was financially dependent on the deceased annuitant by reason of physical or mental infirmity. In this case, the RRSP or RRIF proceeds may be transferred without tax to the RRSP of the child or may be used to purchase an immediate life annuity. For 2004 a child or grandchild is considered to be financially dependent if the child's income for the year preceding the year of death was below \$14,035. This threshold is indexed to inflation.

Registered Education Savings Plans

Generally, a student has to be registered full-time at a qualifying post-secondary institution in order to receive a payment out of a registered education savings plan to further his/her post-secondary education. The full-time requirement is waived for students who qualify for the DTC and those who cannot reasonably be expected to be enrolled as a full-time student because of a certified mental or physical impairment.

Home Buyers' Plan

The Home Buyers' Plan allows individuals to make a tax-free withdrawal of up to \$20,000 from their RRSP to purchase a home. Funds withdrawn for this purpose must be returned to the RRSP in equal annual instalments over no more than 15 years.

In general, the plan is targeted to first-time home buyers. However, since 1998, persons eligible for the DTC need not be first-time home buyers to benefit from the plan. In particular, these persons, their spouses and their relatives may draw funds from their RRSPs to help finance the purchase of a house that is better suited to the needs of the person with a disability. Furthermore, either the person with the disability, his/her spouse or relative of the person with the disability may own the house.

Corporate Income Tax

Expensing of Capital Expenses Incurred to Adapt Buildings

Certain capital expenses incurred to adapt a building to enable individuals who have a mobility impairment to gain access to the building or to be mobile within it can be deducted fully in the year the expense is incurred instead of being depreciated over time through the capital cost allowance system. Eligible capital expenditures include ramps, door openers and modifications to bathrooms, elevators and doorways. The same corporate tax treatment applies to expenses for certain disability-related devices or equipment (e.g., visual fire alarm indicators and listening devices for group meetings).

Customs Tariff

Duty-Free Entry of Disability-Related Goods

The *Customs Tariff* provides for duty-free entry of goods that are specifically designed to assist persons with disabilities in alleviating the effects of those disabilities, and articles and materials for use in such goods.

Goods and Services Tax

Special Treatment of Goods and Services Used by Persons With Disabilities

Many goods and services used by people with disabilities or infirmities are exempt from, or are zero-rated for purposes of, the goods and services tax/harmonized sales tax (GST/HST). Rebates of GST/HST are also available in certain cases.

- Exempt goods for which the GST/HST does not apply include most health care services, personal care and supervision programs provided in a business establishment, programs to provide prepared meals in the homes of people with disabilities, and recreational programs offered by public sector bodies.
- Zero-rated goods include prescription drugs as well as many medical devices and supplies and guide dogs.
- A rebate applies to modifications made to vehicles for persons with disabilities.

Excise Tax on Gasoline

Refund for Persons With a Mobility Impairment

A partial refund of 1.5¢ per litre is available for gasoline for the personal use by a person with a permanent mobility impairment who cannot safely use public transportation.

**TAXATION AND ECONOMIC EFFICIENCY:
RESULTS FROM A GENERAL EQUILIBRIUM MODEL**

1. INTRODUCTION AND SUMMARY

The fundamental role of the tax system is to raise the revenue necessary to finance the programs and services provided by the government on behalf of citizens. While the provision of public services has clear benefits, taxes impose unavoidable costs on the economy through their effects on incentives to work, save and invest, and on a nation's ability to attract and retain skilled workers, entrepreneurs and investment capital. These impacts on economic efficiency vary by type of tax so governments can, in principle, adjust the mix of taxes to minimize the cost of financing a given level of government services.

Efficiency, of course, is not the only criteria according to which a tax system should be assessed. How the tax system affects the distribution of income in the economy is also an important consideration. In addition, the administrative burden imposed on government and the compliance costs imposed on taxpayers need to be taken into consideration.

This paper addresses the efficiency of the tax system and its various components. It provides estimates of the comparative long-run economic costs imposed by the principal taxes in Canada, as revealed by simulations with a model of the Canadian economy developed at the Department of Finance Canada. The estimates of the economic costs are a reflection of the effects that taxation has on behaviour. For example, labour taxation causes people to work less than they would in the absence of such taxation. Similarly, taxing investment causes people to invest less than they would otherwise.

The key finding of the analysis is that, in the current Canadian setting, taxes on saving and investment impose higher economic costs than taxes on wages and consumer spending. This is attributable to the impact on productivity and wages of capital accumulation effects that occur in response to changes in taxes on saving and investment. Taxes on wages and consumption also affect economic performance, but the effects are smaller because of the relatively low sensitivity of labour supply to changes in wages. While the estimates of the costs for specific taxes are sensitive to the assumptions made in constructing the model and to the channels of influence captured in it, the ranking of taxes by economic cost is robust and indeed consistent with other studies in the Canadian and international economic literature.

2. PRINCIPAL TAXES IN CANADA

Canadian governments (federal, provincial, territorial and local) raised about \$360 billion through taxation in the 2003–04 fiscal year, which is equivalent to about 30 per cent of Canada's gross domestic product or GDP (Table 1). This amount was split roughly equally between the federal government on the one hand and provincial/territorial/local governments on the other.

Table 1
The Tax Mix in Canada (Fiscal Year Ending March 31, 2004)

	% of tax revenues			% of GDP ²
	Federal	Provincial/ territorial/ local	Total	
Personal income taxes¹	26.4	14.4	40.9	12.1
On wage income	25.3	13.8	39.1	11.6
On investment income	1.2	0.6	1.8	0.5
Payroll taxes	6.1	5.7	11.7	3.5
General payroll taxes	0.0	2.4	2.4	0.7
Contributions to social security plans ³	6.1	2.4	8.5	2.5
Health and drug insurance premiums	0.0	0.8	0.8	0.2
Property taxes¹	0.0	11.2	11.2	3.3
Residential	0.0	6.5	6.5	1.9
Business	0.0	4.7	4.7	1.4
Corporate income taxes	7.5	3.2	10.7	3.2
Corporate capital taxes	0.4	0.9	1.4	0.4
Sales taxes¹	8.6	8.5	17.0	5.1
Value-added taxes ⁴	8.6	2.8	11.4	3.4
Retail sales taxes	0.0	5.6	5.6	1.7
On consumer spending	0.0	2.9	2.9	0.8
On business inputs	0.0	2.8	2.8	0.8
Excise taxes and customs duties	3.4	3.6	7.1	2.1
Total tax revenues (%)	52.4	47.6	100.0	29.7
Total tax revenues (\$ billions)	189.6	171.9	361.5	
Total government revenues⁵ (\$ billions, %)	203.5	254.8	458.3	37.6

¹ Breakdown based on calculations by the Department of Finance.

² Based on 2003 GDP estimate in current dollars.

³ Does not include Canada Pension Plan and Quebec Pension Plan.

⁴ Consists of the goods and services tax/harmonized sales tax and the Québec sales tax.

⁵ Non-tax revenues include user fees, net revenue from gaming activities, liquor profits and investment income. Excludes intergovernmental transfers.

Note: Numbers may not add due to rounding.

Source: Statistics Canada, tables 385-0001 and 380-0001.

Roughly 75 per cent of government tax revenue is raised through direct taxes on persons and corporations. Taxes on wage and salary income are the largest component, followed by payroll and property taxes. Corporate income taxes are next, accounting for just over 10 per cent of government tax revenues in Canada. Taxes on personal saving, or on investment income such as interest, dividends and capital gains, as well as corporate capital taxes, represent a small share of tax revenues.

Sales and other indirect taxes account for nearly 25 per cent of government tax revenues. In contrast to value-added taxes such as the goods and services tax/harmonized sales tax and the Québec sales tax, provincial retail sales taxes are imposed not only on consumer spending but also on certain intermediate materials and capital goods used by businesses.

3. GENERAL EQUILIBRIUM MODELS AND POLICY ANALYSIS

Economic models provide a simplified representation of the market for a specific good or service, an industrial sector or the entire economy. They are used to evaluate the impact of changes in the economic environment, including government policies, on the market or economy being studied. Models that examine how long-run, or equilibrium, relationships are affected by changes in the economic environment are described as “general equilibrium” models.

General equilibrium models assume that capital and labour are fully employed at all times; the focus is therefore on how efficiently resources are being allocated in the economy rather than on how intensively they are being used. General equilibrium models use standard microeconomic theory to specify how the principal actors in the economy (i.e. consumers, firms and governments) respond to changes in relative prices and how their decisions interact. For example:

- The decision made by consumers about how much to save depends on the level of interest rates, which is in turn influenced by the investment decisions of firms. Ultimately, the interest rate adjusts to ensure that the total supply of savings equals the total demand for investment.
- Hiring decisions made by firms are influenced by the market wage rate, which in turn affects the number of people seeking work. In this case, the market wage adjusts to ensure that the demand for labour equals its supply.

General equilibrium models provide a unified and consistent framework within which several policy options can be evaluated and compared. The model results are dependent on estimates of the sensitivity of economic decisions to changes in relative prices. While these are empirically based, analysts may use different values of parameters to arrive at different quantitative results. Hence, general equilibrium models are more useful for the qualitative insights they provide and for ranking different policy choices than for the specific numerical results obtained.

The general equilibrium model used in this paper features a representative consumer and four representative corporations operating in four industries. The foreign sector consists of a single representative “agent” who owns a substantial portion of the domestic capital stock and who trades goods, services and financial capital with Canada. In the model, the consumer makes decisions about work, leisure, consumption and savings in a manner that maximizes his or her economic well-being, which is defined as a function of consumption and leisure time available. Economic well-being can therefore be thought of as the level of satisfaction over time associated with the amount of goods and services being consumed and the amount of leisure time available. Production decisions are made by

profit-maximizing firms operating in a competitive environment using one type of capital,²² homogeneous labour and intermediate materials produced in Canada and abroad. Relative prices are the key determinant of the flow of goods and services between Canada and the rest of the world while the relative rates of return on investment determine the net flow of financial capital across borders.

The model examines the effects of altering the tax mix on four key decisions: the decision to consume or invest; the decision to invest at home or abroad (by both Canadians and foreigners); the labour-leisure decision; and the composition of consumption and investment in terms of domestically produced and imported commodities. While the demand and supply of labour and the economy's output are assumed to be always in balance, the stock of business capital and the stock of the consumer's financial assets take time to reach a new equilibrium value. As a result, the benefits of tax reductions that affect desired asset stocks take longer to be realized than tax reductions that affect consumption and labour supply decisions.

A thorough description of the structure of the model, data sources and calibration procedure is available in a background paper.²³

4. IMPACTS OF TAXATION ON ECONOMIC EFFICIENCY

The estimates of the impact of various tax reductions on economic well-being are summarized in the chart below.²⁴ The simulations incorporate stylized tax measures that offset the revenue loss from the tax cut without creating any economic distortions. More specifically, the lost tax revenue is assumed to be recovered through "lump-sum" or head taxes, which have no effect on the incentives to work, save or invest. This assumption is used as a simplifying device, providing a neutral benchmark against which all policy options can be compared.

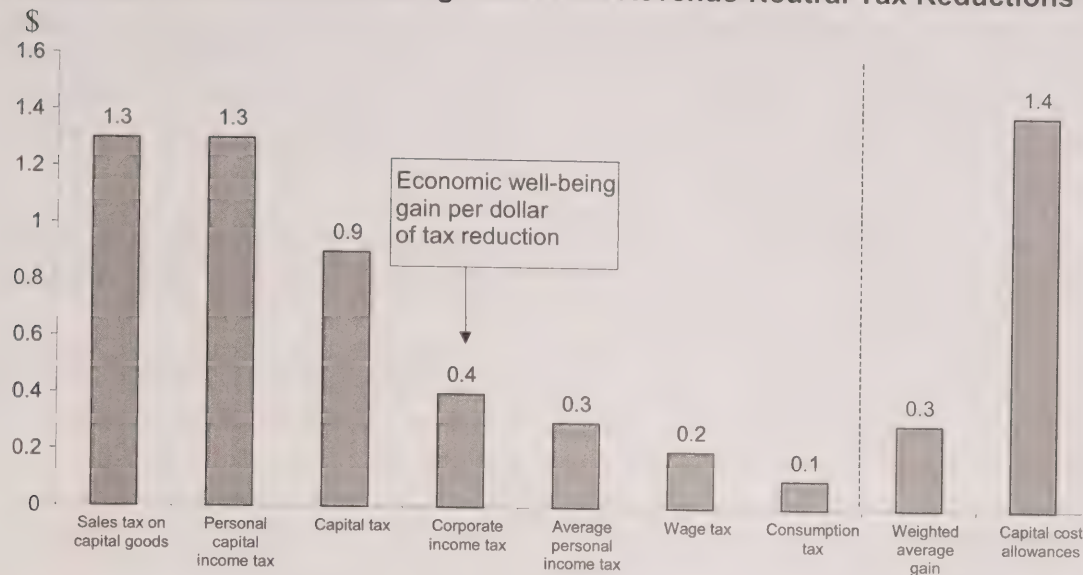
The full impacts of tax reductions take time to be realized and, as noted above, the time profile varies by type of tax. These differences can affect the estimated well-being gains from tax reductions. If two initiatives have the same long-run impact, the gain will be larger for the initiative that provides benefits earlier. In order to take these differences in the transition path into account, the change in economic well-being is measured on a discounted present-value basis. The figures in the chart are scaled to represent the economic well-being gain in dollars for a \$1 reduction in tax revenue. For example, reducing personal capital income taxes by one dollar, and financing the revenue loss by a one-dollar lump-sum tax, would raise well-being measured on a discounted present-value basis by \$1.30. This is the economic benefit to taxpayers and society of reducing the economic distortions that would otherwise result from this dollar of taxation.

²² The useful life and the rate of capital consumption allowance of the single capital good do, however, vary by industry.

²³ Maximilian Baylor and Louis Beauséjour, "Taxation and Economic Efficiency: Results from a Canadian CGE Model," Department of Finance Canada working paper (forthcoming), www.fin.gc.ca/access/ecfisce.html.

²⁴ The simulated tax reductions represent small changes, not a fundamental restructuring of the tax system.

Long-Run Economic Well-Being Gain From Revenue-Neutral Tax Reductions*



* The revenue loss is assumed to be recovered through lump-sum taxation.

The estimates in the chart can be used to assess the efficiency effect of replacing the lost revenue with another tax. To continue with the previous example, if the lost tax revenue were replaced by a tax on consumer spending, there would still be a large net well-being gain since the economic benefit from reduced taxation of investment income is substantially higher than the economic cost associated with the taxation of consumer spending.

Before analyzing the results, it is worth explaining the two bars to the right of the dashed line in the chart. The first bar represents the weighted average gain in well-being for all taxes analyzed.²⁵ This calculation shows that a small, equal reduction in all taxes would raise well-being by 30 cents per dollar of revenue forgone. The second bar is the result for a simulated increase in capital cost allowance (CCA) on new capital only. Since the depreciation of capital is a cost borne by firms in the production process, the tax system allows the deduction of depreciation costs according to legislated CCA rates. This simulation is reported separately because increasing CCA is not a tax reduction per se but rather an increase in a deduction applicable against the corporate income tax.

As can be seen from the chart, the model suggests that reducing taxes on saving and investment produces larger gains than reducing taxes on wages or consumption. In particular, increasing CCA on new capital, cutting sales taxes on capital goods and cutting personal capital income taxes appear particularly potent.

²⁵ A reduction in property taxes is not included in this calculation.

Taxes on Saving and Investment Versus Labour and Consumption Taxes

The larger effect of taxes on saving and investment is attributable to capital accumulation effects. For example, reducing the tax on investment income raises the net-of-tax rate of return, which increases saving leading to a lower cost of capital to firms and higher investment. In turn, the higher capital stock boosts economic well-being by increasing productivity and, hence, wages.

In contrast, while reducing taxes on wages and consumption raises the real wage and improves economic performance by increasing hours worked, the benefits are small relative to tax cuts that affect saving and investment. This difference is largely determined by the relative size of two key model parameters: the sensitivity of labour supply to the wage rate and the sensitivity of investment to changes in the cost of capital. Estimates in the economic literature indicate that labour supply is less sensitive to changes in wages than investment is to the cost of capital.

The dynamics of the two types of tax cuts are also quite different. Reducing taxes on saving and investment initially leads to a fall in consumer spending as consumers find it beneficial, in light of the higher rate of return, to postpone consumption and to save. Eventually, of course, higher saving leads to a higher sustainable rate of consumption. In contrast, cutting wage and consumption taxes raises consumer spending immediately.

Reducing Taxes on New Investment

The model results suggest that reducing the sales tax on capital goods is a particularly effective way of promoting capital accumulation and hence well-being. The high cost-effectiveness reflects the fact that the tax cut is channelled entirely to new investment so there is no windfall gain to existing capital. Some of the tax cut will, however, accrue to foreigners, who undertake a substantial proportion of new investment in Canada.

Increasing CCA on new capital is a policy option whose mechanics are similar to those of reducing sales taxes on capital goods: only new capital is affected but there are also benefits to foreign investors. The results confirm the potential benefits of aligning CCA rates with economic lives where depreciation costs are not adequately covered. Such a policy change would reduce not only inter-temporal distortions but also inter-sectoral and inter-asset distortions.²⁶

²⁶ These impacts are not captured in the model since, as indicated earlier, it contains only four industries and one representative capital good. See John Whalley, "Efficiency Considerations in Business Tax Reform," Working Paper 97-8, Technical Committee on Business Taxation, Ottawa for a discussion of the estimates of the efficiency gains from a more neutral corporate income tax system. Note that setting CCA rates in excess of economic lives would have negative effects because the tax system would distort the true economic cost of using a capital asset. In addition, "accelerated" CCA can encourage economically costly tax-planning activities.

Reducing Personal Capital Income Taxes

The model indicates that cutting personal capital income taxes (that is, taxes on interest, dividends and capital gains) provides benefits about as large as reducing the sales tax on capital goods or aligning CCA rates with economic lives. The key avenue of effect here is that the tax reduction increases the pool of Canadian savings, which reduces the cost of capital for Canadian firms. This result depends importantly on the assumption that most induced savings will be invested in Canada. Canadians invest about 80 per cent of their wealth in Canada, and it is assumed that this average “home bias” applies to the additional savings induced by the tax cut.²⁷

Reducing Corporate Income Taxes

Reducing the statutory rate of corporate income tax promotes capital accumulation by increasing the after-tax return to capital. This option is, within the confines of the model, a less cost-effective way to improve well-being than reducing sales taxes on capital goods and personal taxes on capital income. The gap with sales taxes on capital goods largely reflects the fact that the statutory rate reduction applies to both old and new capital. There are two key factors that explain the gap with personal capital income tax reductions. First, some of the corporate income tax cut will accrue to foreigners, who own a substantial portion of the Canadian capital stock, while the personal capital income tax cut applies to Canadian residents only.

Second, the corporate income tax rate reductions interact with CCA and adjustment costs. When CCA exceeds economic depreciation, as it does on average in Canada, firms receive a tax benefit on new investment from CCA that is valued at the corporate tax rate. Reducing corporate taxes therefore lowers the value of the CCA tax benefit.²⁸ Since there is no interaction between CCA and personal capital income taxes, reducing them has a larger impact on the effective tax rate on new investment than a revenue-equivalent reduction in the corporate income tax rate.

This effect is reinforced when the adjustment costs that firms must go through when they make new investments are taken into consideration. Adjustment costs, modelled in the form of temporarily lower production as firms invest, reduce taxable income since they are, in effect, immediately expensed. A corporate tax rate reduction increases the after-tax cost of this “expense.” This also lowers the benefit of the corporate income tax rate cut for new investment. There is no parallel effect with personal capital income taxes.

²⁷ Theoretical arguments can be developed to support or refute this assumption, and empirical work does not provide firm guidance on the issue. The results are also affected by the assumption that the marginal source of investment funds for Canadian corporations is a taxable domestic resident. If the marginal source were a foreigner or a domestic tax-exempt resident, the cost-effectiveness of reductions in personal capital income taxes would be smaller. In this case, the existing empirical evidence points to the marginal supplier being a taxable resident.

²⁸ If CCA were on average less than economic depreciation, firms would be paying a tax penalty on new investment. In this case, a reduction in the statutory rate would result in a smaller penalty, which would favour investment in new capital and raise the cost-effectiveness of the corporate tax cut.

The model result does not take into consideration any tax-planning effects. In 2000 Canada's combined federal/provincial statutory rate was the second highest in the Group of Seven (G-7), giving multinational enterprises (MNEs) operating in Canada an incentive to shift taxable income to other jurisdictions. As a result of the rate reductions in the Five-Year Tax Reduction Plan announced in Budget 2000 and rate reductions by some provincial governments, Canada's statutory tax rate is now below the average U.S. (federal-state) rate and in the middle of rates in the G-7 countries. The tax cuts implemented since 2000 would be expected to deliver two benefits: additional investment in Canada and additional revenue since MNEs now have less of an incentive to shift taxable income out of Canada. The model results may therefore understate the impact on economic well-being for Canada of corporate tax reductions.

Capital Tax Reduction

Capital and corporate income tax reductions have different impacts on economic efficiency despite the fact that, in the absence of risk, they are equivalent ways of taxing income from capital. The difference arises because of the interaction between corporate income taxes and CCA and adjustment costs discussed above. Since there are no parallel effects with capital taxes, this interaction causes the corporate rate reduction to give less of the benefits to new capital than a revenue equivalent capital tax reduction.

Note, however, that the model does not capture the risk-shifting aspect of the capital tax. Unlike corporate income taxes, capital taxes must be paid even if the investment is not profitable, which makes them more distortionary. For example, capital taxes add to the losses incurred by businesses during economic downturns and reduce the cash flow of start-ups and expanding firms. In other words, because they are profit insensitive, capital taxes increase the risk of investing to business more than corporate income taxes, which share the risks between the firm and the government. In fact, profit insensitivity is the principal argument in favour of reducing capital taxes. Since this feature is not captured in the model, the results clearly understate the gains from capital tax reduction.

5. SENSITIVITY ANALYSIS AND COMPARISON WITH OTHER STUDIES

Sensitivity tests are implemented by performing the tax reduction simulations described in the section "Impacts of Taxation on Economic Efficiency" using alternative, yet equally plausible, values for important model parameters. This exercise reveals that the ranking of policy options is more or less unaffected, but that the point estimates do change substantially. This finding is consistent with results from other reviews of general equilibrium models.²⁹

²⁹ See Kenneth Judd, "The Welfare Cost of Factor Taxation in a Perfect-Foresight Model," *Journal of Political Economy*, 1987, Vol. 95, No. 4 for a particularly convincing exposition.

Another issue that can affect results is model design. The choice of the theoretical framework that underpins the functioning of a model is of great importance since different frameworks can affect the results. In addition, because modellers tend to refine some areas and simplify others, different results can be obtained even within the confines of a given theoretical framework. A recent survey of the general equilibrium tax literature conducted at the Department of Finance explores the issue of result consistency across general equilibrium tax models.³⁰ The study reviews results from seven general equilibrium models (including the one used in this paper) and finds that they paint a fairly consistent picture. All but one of the seven studies reviewed find that taxes on capital are the most distortionary, followed by taxes on wages and then taxes on consumption. Furthermore, although only three studies examine the issue, measures targeted towards reducing taxes on new investment only are found to be highly effective. The magnitudes of the numerical results do, however, vary considerably by model and country.

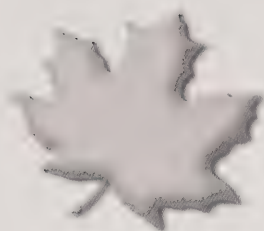
6. CONCLUSION

This paper uses a general equilibrium model to simulate the impact of tax reductions. The simulations suggest that taxes on saving and investment impose the highest economic costs, followed by wage and then consumption taxes. Measures targeting new investment and personal capital income tax are found to be especially potent. The model results suggest that changes in the structure of taxation could improve economic performance.

It is important to remember a number of caveats in interpreting the results. Some of the channels through which tax policy affects the economy are not modelled. For example, tax-planning effects, which can have significant impacts in some circumstances, are not captured in the model: in this case, the results may underestimate the impact of corporate income tax reductions. Further, the model does not provide information about the effects that altering the tax mix might have on capital and labour quality. Finally, the estimates could be affected if the model were enriched by including more types of capital, more than one consumer and a more detailed modelling of the rest of the world.

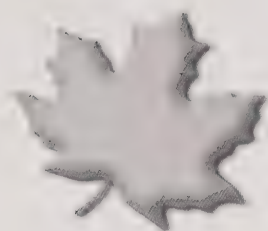
Lastly, this paper focuses entirely on efficiency, which is but one of the criteria according to which any tax system should be assessed. Since the other criteria are also important to judgement on tax policy, the analysis provided herein offers only part of a larger picture.

³⁰ Maximilian Baylor, "Ranking Tax Distortions in Dynamic General Equilibrium Models," Department of Finance Canada working paper (forthcoming), www.fin.gc.ca/access/ecfisce.html.



TAX EXPENDITURES AND EVALUATIONS

2005



TAX EXPENDITURES AND EVALUATIONS

2005



Department of Finance
Canada

Ministère des Finances
Canada



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PREFACE

Since 2000, the tax expenditure report has been separated into two documents. This document, *Tax Expenditures and Evaluations*, is published on an annual basis. It provides estimates and projections for broadly defined tax expenditures as well as evaluations and descriptive papers addressing specific tax measures. This year's edition includes a paper entitled "Marginal Effective Tax Rates on Business Investment: Methodology and Estimates for Canadian and US Jurisdictions."

The companion document, *Tax Expenditures: Notes to the Estimates/Projections*, was published in 2004. It is a reference document for readers who wish to know more about how the estimates and projections are calculated and who want descriptions of or information on the objectives of particular tax expenditures. New tax expenditures, as well as changes to existing tax expenditures, since last year's report are described in the relevant section of this document.

PART 1
TAX EXPENDITURES:
ESTIMATES AND PROJECTIONS

INTRODUCTION

The principal function of the tax system is to raise the revenues necessary to fund government expenditures. The amount of revenue raised is determined to a large extent by tax bases and tax rates. It is also a function of a range of measures—special tax rates, exemptions, deductions, rebates, deferrals and credits—that affect the level and distribution of tax. These measures are sometimes called “tax expenditures” because they have an impact on government revenue (i.e. they have a cost) and they reflect the policy choices of the Government.

In order to determine these tax expenditures, it is necessary to establish a “benchmark” tax structure that applies the relevant tax rates to a broadly defined tax base—e.g. personal income, business income or consumption. Tax expenditures are then measured as deviations from this benchmark. Reasonable differences of opinion exist about what should be considered a normal part of the tax system and hence about what should be considered a tax expenditure. For example, a deduction for expenses incurred in earning income is generally considered as part of the benchmark and thus not as a tax expenditure. But, in some cases, the deduction may confer some personal benefit, making its classification ambiguous.

This report takes a broad approach and includes estimates and projections of the revenue loss associated with all but the most fundamental structural elements of the tax system, such as the progressive personal income tax rate structure. As a result, this includes not only measures that may reasonably be regarded as tax expenditures but also other measures that may be considered as part of the benchmark tax system. The latter are listed separately under “memorandum items.” For instance, the dividend gross-up and credit is listed under this heading because its purpose is to reduce or eliminate the double taxation of income earned by corporations and distributed to individuals through dividends. Also included under this heading are measures for which there may be some debate over whether they should be considered as tax expenditures or where data limitations do not permit a separation of the tax expenditure and benchmark components of the measure. This approach provides information on as full a range of measures as possible.

Caveats

Care must be taken in interpreting the estimates and projections of tax expenditures in the tables for the following reasons.

- The estimates and projections are intended to indicate the potential revenue gain that would be realized by removing individual tax measures. They are developed assuming that the underlying tax base would not be affected by removal of the measure. However, this is an assumption that is unlikely to be true in practice as the behaviour of economic agents, overall economic activity and other government policies could change along with the specific tax provision.
- The cost of each tax measure is determined separately, assuming that all other tax provisions remain unchanged. Many of the tax expenditures do, however, interact with each other such that the impact of several tax provisions at once cannot generally be calculated by adding up the estimates and projections for each provision.
- The federal and provincial income tax systems interact with each other to various degrees. As a result, changes to tax expenditures in the federal system may have consequences for provincial tax revenues. In this publication, however, any such provincial effects are not taken into account—that is, the tax expenditure estimates and projections address strictly the federal tax system and federal tax revenue.
- In the case of the harmonized sales tax in effect in Nova Scotia, New Brunswick, and Newfoundland and Labrador, only the federal cost of the tax expenditures is reported.

The tax expenditure estimates and projections presented in this document are developed using the latest available taxation data. Revisions to the underlying data as well as improvements to the methodology can result in substantial changes to the value of a given tax expenditure in successive publications. In addition, estimates and projections for some tax measures, such as the half inclusion rate on capital gains, are particularly sensitive to economic parameters and hence may also differ significantly from one publication to the next.

WHAT'S NEW IN THE 2005 REPORT

A number of new tax measures have been proposed or legislated since last year's report and others have been modified. These are described below.

Personal Income Tax

Adoption Expense Tax Credit

Objective: *This measure provides tax recognition to parents for costs that are unique to the decision to adopt a child. (Budget Plan, 2005)*

In order to provide tax recognition of the exceptional costs of adoption, Budget 2005 proposed a 16% non-refundable tax credit to recognize specified adoption expenses, up to a maximum of \$10,000.

This measure, which applies for the 2005 and subsequent taxation years, allows adoptive parents to claim a range of eligible expenses such as adoption agency fees, legal expenses, and travel and living expenses for the child and the adoptive parents.

Basic Personal Amount

Budget 2005 increased the basic personal amount, the amount that all Canadians may earn without paying federal income tax, to \$10,000 by 2009, and made corresponding increases to the amount for a dependent spouse or common-law partner and the equivalent amount for an eligible dependant.

Child Disability Benefit

Budget 2005 increased the maximum annual Child Disability Benefit to \$2,000 from \$1,681 per child beginning in July 2005.

Disability Supports Deduction

Budget 2005 proposed to expand the list of expenses eligible for the disability supports deduction, introduced in Budget 2004, to include costs such as job coaches, deaf-blind interveners and Braille note-takers.

Disability Tax Credit

Budget 2005 proposed a number of changes to the disability tax credit (DTC), including:

- Extending eligibility for the DTC to individuals who face multiple restrictions that together have a substantial impact on their everyday lives.
- Amending the DTC to ensure that more individuals requiring extensive life-sustaining therapy on an ongoing basis are eligible.

Medical Expense Tax Credit

Budget 2005 proposed to double the maximum amount of medical and disability-related expenses that can be claimed by caregivers to \$10,000 from \$5,000.

Non-Taxation of Veterans' Income Support Benefit

Objective: *The provision recognizes that these benefits provide a basic level of support to veterans.*

Beginning in 2006, as part of the modernization package for Canadian Forces veterans and their families, veterans may be eligible to receive the Canadian Forces Income Support Benefit. This tax-free benefit provides income support to those who have completed rehabilitation and are able to work, but who have not yet found employment.

Non-Taxation of the Veterans' Disability Award

Objective: *The provision recognizes that these benefits compensate for the non-economic effects of a veteran's service-related disability.*

Beginning in 2006, as part of the modernization package for Canadian Forces veterans and their families, veterans may be eligible to receive a tax-free lump-sum Disability Award payment. This compensates Canadian Forces veterans for the non-economic effects of a service-related disability, such as pain and suffering, functional loss, and the loss of enjoyment of life. It will replace the current veterans' Disability Pension for those with new service-related disabilities.

Refundable Medical Expense Supplement

Budget 2005 increased the maximum amount of the refundable medical expense supplement to \$750 from \$571 per year.

Registered Pension Plan and Registered Retirement Savings Plan Limits

Budget 2005 increased the limits for registered pension plans (RPPs), registered retirement savings plans (RRSPs) and deferred profit sharing plans (DPSPs) as follows:

- The money purchase RPP annual contribution limit will be increased to \$19,000 for 2006, \$20,000 for 2007, \$21,000 for 2008 and \$22,000 for 2009. Corresponding increases will be made to the maximum pension limit for defined benefit RPPs, bringing it to \$2,111 for 2006, \$2,222 for 2007, \$2,333 for 2008 and \$2,444 for 2009.
- Because RPP limits are based on current year earnings while RRSP limits are based on prior year earnings, the RRSP limits are lagged one year behind the corresponding RPP limits. Accordingly, the RRSP annual contribution limit will be increased to \$19,000 for 2007, \$20,000 for 2008, \$21,000 for 2009 and \$22,000 for 2010.

- The DPSP limit will remain at one-half of the money purchase RPP limit.
- The limits will be indexed to average wage growth, starting in 2010 for RPPs and DPSPs, and in 2011 for RRSPs.

Corporate Income Tax

Deferral of Tax on Patronage Dividends Paid by Agricultural Cooperatives

In order to improve the capitalization of agricultural cooperatives, Budget 2005 proposed a measure to allow members of agricultural cooperatives to defer paying tax on patronage dividends they receive in the form of shares until the shares are disposed of.

Objective: *Agricultural cooperative corporations play an important role in rural communities. To aid their capitalization, Budget 2005 proposed to allow members of such cooperatives to defer paying tax on patronage dividends paid to them in the form of eligible shares rather than as cash distributions. (Budget Plan, 2005)*

Cooperatives can distribute earnings to their members in the form of patronage dividends, which are paid in proportion to the amount of business the member has undertaken with the cooperative. In computing its income, a cooperative may deduct patronage dividends paid to its members. Accordingly, income paid out in the form of patronage dividends is not subject to tax at the cooperative level. Patronage dividends received by a member, other than those received in respect of consumer goods and services, are included in the recipient's income and are taxable in the year they are received.

This measure permits eligible members of eligible agricultural cooperatives to defer the inclusion in income of all or a portion of any patronage dividend received as an eligible share until the disposition (or deemed disposition) of the share. Eligible shares must be issued after 2005 and before 2016.

This measure is considered a tax expenditure because it constitutes a departure from the benchmark system by allowing members of eligible agricultural cooperatives to defer the inclusion in income of patronage dividends received in the form of shares until the disposition (or deemed disposition) while other patronage dividends are usually included in the recipient's income and are taxable in the year they are received.

Goods and Services Tax

Expanded Goods and Services Tax/ Harmonized Sales Tax Health Care Rebate

Public hospitals are entitled to an 83% rebate of the goods and services tax (GST) and the federal portion of the harmonized sales tax (HST) that they pay on purchases used to provide exempt health care services. The 2005 budget announced the extension of the application of the 83% rebate to eligible charities and non-profit organizations in respect of the GST and federal component of the HST paid on purchases related to their health care services that are similar to those traditionally performed in hospitals. Further, eligible entities—including public hospitals—that incur substantially all of their GST/HST on goods and services for use in respect of the supply of health care services now qualify for the 83% rebate on all of their GST and the federal component of the HST that they incur. These measures have been legislated and are effective January 1, 2005.

THE TAX EXPENDITURES

Tables 1 to 3 provide tax expenditure values for personal income tax, corporate income tax and the goods and services tax for the years 2000 to 2007.

Estimates and projections are developed using the methodology set out in Chapter 1 of *Tax Expenditures: Notes to the Estimates/Projections* (2004).¹ The economic variables used to develop the estimates and projections are based on the private sector average forecast presented in the February 2005 budget.

The tax expenditures are grouped according to functional categories. This grouping is provided solely for presentational purposes and is not intended to reflect underlying policy considerations.

All estimates and projections are reported in millions of dollars. The letter “S” indicates that the cost is less than \$2.5 million, “n.a.” signifies that data is not available to support a meaningful estimate/projection, and a dash means that the tax expenditure is not in effect. The inclusion in the report of items for which estimates and projections are not available is warranted given that the report is designed to provide information on measures included in the tax system even if it is not always possible to provide their revenue impacts.

Work is continuing to obtain quantitative estimates and projections where possible. For example, in previous years, data limitations prevented the split between the scientific research and experimental development and Atlantic investment tax credit of investment tax credits claimed in the current year but earned in prior years (carry-forwards) as well as investment tax credits earned in the current year but applied against prior years’ taxes (carry-backs). With the availability of new data, it is now possible to provide an estimate of the cost of these carry-forwards and carry-backs. As a result, the total cost of each of these measures can now be provided more accurately.

¹ Available on the Department of Finance Canada website at www.fin.gc.ca.

Table 1
Personal Income Tax Expenditures^{*,†}

	Estimates			Projections				
	2000	2001	2002	2003	2004	2005	2006	2007
	(\$ millions)							
Charities, Gifts and Contributions								
Charitable donations credit	1,495	1,490	1,580	1,605	1,635	1,670	1,700	1,745
Reduced inclusion rate for capital gains arising from donations of publicly listed securities and ecologically sensitive land ¹	19	6	3	6	6	7	7	8
Non-taxation of capital gains on gifts of cultural property ²	7	6	3	13	9	7	7	7
Non-taxation of gifts and bequests	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Political contribution tax credit ³	19	8	9	11	22	15	17	17
Culture								
Assistance for artists	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deduction for artists and musicians	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Education								
Adult basic education—tax deduction for tuition assistance	—	—	10	5	5	5	5	5
Apprentice vehicle mechanics' tools deduction	—	—	10	10	10	10	10	10
Education credit ⁴	140	260	250	260	275	280	280	280
Tuition credit	310	275	275	295	305	320	325	330
Education and tuition credits carried forward from prior years ⁵	165	170	245	250	255	255	255	260
Transfer of education and tuition credits	325	390	420	435	450	460	465	470
Partial exemption of scholarship, fellowship and bursary income ⁶	29	21	22	22	22	23	23	23
Registered education savings plans ^{7, 8}	97	95	120	120	135	135	130	115
Student loan interest credit	66	66	60	62	63	64	66	68

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, published in 2004 and available on the Department of Finance Canada website (www.fin.gc.ca), for a discussion of the reasons for this.

† The February 2000 budget fully indexed, effective January 1, 2000, those parameters that were previously only partially indexed. The *Economic Statement and Budget Update* of October 2000 reduced all personal income tax rates and eliminated the deficit reduction surtax, effective January 1, 2001. These rate reductions lower the value of exemptions and deductions, as well as those non-refundable tax credits whose values depend on a tax rate, in the year the change was introduced, but this is generally followed by growth in their value over time in line with increases in the underlying tax base.

Table 1

Personal Income Tax Expenditures (*cont'd*)

	Estimates			Projections				
	2000	2001	2002	2003	2004	2005	2006	2007
	(\$ millions)							
Employment								
Deduction for income earned by military and police deployed to high-risk international missions	—	—	—	—	30	30	30	30
Deduction of home relocation loans	S	S	S	S	S	S	S	S
Deferral of salary through leave of absence/sabbatical plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Employee benefit plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Employee stock options ⁹	690	650	415	480	400	350	300	250
Non-taxation of certain non-monetary employment benefits	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of strike pay	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Northern residents deductions	135	125	130	130	130	135	135	140
Overseas employment credit	55	57	62	62	63	64	65	66
Tax-free amount for emergency service volunteers	14	14	14	14	14	14	14	14
Family								
Adoption expense tax credit ¹⁰	—	—	—	—	—	5	5	5
Canada Child Tax Benefit ¹¹	6,610	7,370	7,755	7,985	8,650	9,210	9,605	9,850
Caregiver credit ¹²	35	57	65	65	70	70	75	75
Deferral of capital gains through transfers to a spouse, spousal trust or family trust	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Infirm dependant credit ¹²	5	6	6	6	6	6	7	7
Spouse or common-law partner credit ^{13,14}	1,215	1,160	1,180	1,210	1,275	1,315	1,380	1,455
Eligible dependant credit ^{13,14}	620	610	630	645	665	680	700	730
Farming and Fishing								
\$500,000 lifetime capital gains exemption for farm property ¹⁵	325	215	255	240	245	255	265	275
Cash-basis accounting	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of capital gains through intergenerational rollovers of family farms and commercial woodlots	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of income from destruction of livestock ¹⁶	S	3	S	S	9	-9	S	S
Deferral of income from sale of livestock during drought years	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of income from grain sold through cash purchase tickets ¹⁷	5	-26	21	S	S	11	13	13
Deferral through 10-year capital gain reserve	S	S	S	S	S	S	S	S

Table 1
Personal Income Tax Expenditures (cont'd)

	Estimates			Projections				
	2000	2001	2002	2003	2004	2005	2006	2007
	(\$ millions)							
Exemption from making quarterly tax instalments	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Flexibility in inventory accounting	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tax treatment of the Net Income Stabilization Account ¹⁸								
Deferral of tax on government contributions	74	66	170	45	—	—	—	—
Deferral of tax on bonus and interest income	34	31	26	23	22	7	S	S
Taxable withdrawals	-86	-76	-105	-100	-185	-160	-8	S
Federal-Provincial Financing Arrangements								
Logging tax credit	S	S	S	S	S	S	S	S
Quebec abatement	3,175	2,965	3,050	3,195	3,270	3,475	3,705	3,980
Transfer of income tax points to provinces	14,105	13,555	13,585	14,145	14,530	15,435	16,465	17,675
General Business and Investment								
\$200 capital gains exemption on foreign exchange transactions	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
\$1,000 capital gains exemption on personal-use property	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deduction of accelerated capital cost allowance ¹⁹	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral through use of billed-basis accounting by professionals	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral through capital gains rollovers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral through five-year capital gain reserve	64	20	31	32	32	33	34	35
Investment tax credits	28	33	36	33	34	35	36	37
Mineral exploration tax credit for flow-through share investors ²⁰	9	12	25	45	59	56	-21	—
Partial inclusion of capital gains ²¹	2,500	1,985	1,665	2,120	2,150	2,195	2,235	2,285
Taxation of capital gains upon realization ²²	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<i>Small Business</i>								
\$500,000 lifetime capital gains exemption for small business shares ²³	740	345	305	310	315	320	325	335
Deduction of allowable business investment losses	39	44	48	49	50	51	53	54
Deferral through 10-year capital gain reserve	S	S	S	S	S	S	S	S
Labour-sponsored venture capital corporations credit ²⁴	255	215	180	160	200	200	200	200
Rollovers of investments in small businesses	3	6	3	4	4	4	4	4

Table 1
Personal Income Tax Expenditures (*cont'd*)

	Estimates			Projections				
	2000	2001	2002	2003	2004	2005	2006	2007
	(\$ millions)							
Health								
Child Disability Benefit ²⁵	—	—	—	15	40	50	65	65
Disability tax credit ²⁶	275	330	350	370	380	465	480	495
Medical expense tax credit ²⁷	550	570	635	700	765	820	880	950
Non-taxation of business-paid health and dental benefits	1,610	1,710	1,875	2,060	2,240	2,430	2,625	2,805
Refundable medical expense supplement ²⁸	42	55	64	70	75	85	90	95
Income Maintenance and Retirement								
Age credit	1,385	1,320	1,355	1,400	1,460	1,515	1,555	1,620
Deferred profit sharing plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of certain amounts received as damages in respect of personal injury or death	15	15	15	17	17	18	19	19
Non-taxation of Guaranteed Income Supplement and Allowance benefits ²⁹	290	265	265	290	285	300	305	310
Non-taxation of investment income on life insurance policies ³⁰	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of RCMP pensions/compensation in respect of injury, disability or death	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of social assistance benefits ³¹	290	245	225	220	205	200	185	175
Non-taxation of up to \$10,000 of death benefits	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of veterans' allowances, income support benefits, civilian war pensions and allowances, and other service pensions (including those from Allied countries) ³²	5	5	4	3	3	3	5	5
Non-taxation of veterans' disability pensions and support for dependants ³³	135	135	140	150	155	165	165	165
Non-taxation of veterans' Disability Award ³³	—	—	—	—	—	—	16	20
Non-taxation of workers' compensation benefits	665	650	700	745	760	800	840	885
Pension income credit	425	405	415	425	435	445	455	470
Registered pension plans ³⁴								
Deduction for contributions	4,895	4,575	5,325	7,300	9,100	9,405	10,000	10,630
Non-taxation of investment income	9,390	2,785	335	11,520	9,370	10,005	10,670	11,320
Taxation of withdrawals	-6,695	-6,415	-6,670	-7,125	-7,380	-7,870	-8,340	-8,830
Net tax expenditure	7,590	940	-1,010	11,695	11,090	11,540	12,330	13,120

Table 1
Personal Income Tax Expenditures (*cont'd*)

	Estimates			Projections		
	2000	2001	2002	2003	2004	2005
	(\$ millions)					
Registered retirement savings plans ³⁴	7,155	6,225	5,915	6,030	6,305	6,720
Deduction for contributions						7,225
Non-taxation of investment income ³⁵	4,600	1,280	17	6,300	5,095	5,485
Taxation of withdrawals	-3,515	-3,465	-3,510	-3,855	-4,105	-4,490
Net tax expenditure	8,240	4,040	2,425	8,475	7,295	7,720
Supplementary Information:						
Present value of tax assistance for retirement savings plans ^{36, 37}	6,465	6,140	6,365	7,475	8,760	9,130
Saskatchewan Pension Plan	S	S	S	S	S	S
Treatment of alimony and maintenance payments	170	115	115	115	110	110
Other Items						
Deduction related to vows of perpetual poverty	S	S	S	S	S	S
Deduction for clergy residence	68	67	74	75	75	77
Non-taxation of capital gains on principal residences ³⁸						
Partial inclusion rate	1,000	885	1,405	1,835	2,335	2,385
Full inclusion rate	1,530	1,770	2,810	3,665	4,670	4,770
Non-taxation of income from the Office of the Governor General	S	S	S	S	S	S
Non-taxation of income of Indians on reserves	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Special tax computation for certain retroactive lump-sum payments	S	S	S	S	S	S
Memorandum Items						
<i>Avoidance of Double Taxation</i>						
Dividend gross-up and credit	970	1,215	1,260	1,310	1,365	1,420
Foreign tax credit	580	635	665	675	685	695
Non-taxation of capital dividends	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<i>Recognition of Expenses Incurred to Earn Income</i>						
Child care expense deduction ³⁹	595	530	535	535	535	545
Deduction of carrying charges incurred to earn income	875	825	730	735	745	855
Deduction of union and professional dues	590	550	575	605	610	630
Disability supports deduction (attendant care deduction) ⁴⁰	S	S	S	S	15	20
Moving expense deduction	71	81	88	91	92	95
						97
						100

Table 1

Personal Income Tax Expenditures (cont'd)

	Estimates			Projections				
	2000	2001	2002	2003	2004	2005	2006	2007
	(\$ millions)							
<i>Loss Offset Provisions</i>								
Capital loss carry-overs ⁴¹	225	86	91	150	125	100	100	100
Farm and fishing loss carry-overs	14	16	15	12	12	13	14	15
Non-capital loss carry-overs	91	78	82	85	85	88	90	92
Social and Employment Insurance Programs								
Canada Pension Plan and Quebec Pension Plan ⁴²								
Employee-paid contribution credit	1,845	1,980	2,245	2,460	2,535	2,625	2,710	2,820
Non-taxation of employer-paid premiums ⁴³	2,485	2,160	2,140	2,100	1,985	2,005	2,045	2,105
<i>Other</i>								
Basic personal amount ¹⁴	20,905	20,460	21,085	21,715	22,650	23,370	24,350	25,570
Deduction of farm losses for part-time farmers	59	60	61	52	53	56	60	63
Deduction of other employment expenses	770	735	775	810	820	845	870	905
Deduction of resource-related expenditures ⁴⁴	125	155	175	245	300	325	280	280
Reclassification of flow-through shares ⁴⁵	24	33	31	31	37	41	39	39
Non-taxation of lottery and gambling winnings ⁴⁶	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of specified incidental expenses ⁴⁷	4	—	—	—	—	—	—	—
Non-taxation of allowances for diplomats, military and other government employees posted abroad	9	9	10	10	10	10	10	10
Partial deduction of meals and entertainment expenses	86	85	72	73	73	75	76	77

Table 1
Personal Income Tax Expenditures (cont'd)

Notes:

- ¹ The decline in the tax expenditure in 2001 reflects both the decline in capital markets after 2000 and the reduction in the normal capital gains inclusion rate from three-quarters to one-half in 2000.
- The total tax expenditure cost of this measure has two components: the revenue forgone as a result of the reduced inclusion rate (which is shown in the main table), and the increased cost of the charitable donations credit from any increase in donations that results from the measure. If all of the donations of listed securities and ecologically sensitive land would have been made in the absence of this measure, then (as shown in the main table) the total cost ranges from \$3 million to \$19 million between 2000 and 2007. If, on the other hand, all donations of listed securities and ecologically sensitive land came about as a result of the reduced inclusion rate on capital gains, and if in the absence of the measure the shares and land would have been sold instead of donated, then the cost of the measure ranges from \$32 million to \$80 million between 2000 and 2007, as shown below (in millions of dollars):

	2000	2001	2002	2003	2004	2005	2006	2007
	80	42	32	45	46	53	54	55

The true costs fall somewhere between the lower and upper bounds set by the ranges indicated.

- ² The estimates and projections for this tax expenditure are different from those in previous publications due to an improvement in the methodology, which provides a more accurate estimate of the total cultural gifts donated by individuals.
- The total tax expenditure cost has two components: the revenue forgone as a result of the reduced inclusion rate (which is shown in the main table), and the increased cost of the charitable donations credit from any increase in donations that results from the measure. If all of these donations of cultural property would have been made in the absence of this measure, then (as shown in the main table) the total cost ranges from \$3 million to \$13 million between 2000 and 2007. If, on the other hand, all donations of cultural property came about as a result of this measure, and if the property would otherwise have been sold instead of donated, then the cost of the measure ranges from \$18 million to \$72 million over the period 2000 to 2007, as shown below (in millions of dollars):

	2000	2001	2002	2003	2004	2005	2006	2007
	25	31	18	72	48	36	36	36

The true costs fall somewhere between the lower and upper bounds set by the ranges indicated.

- ³ While the large tax expenditure in 2000 is primarily a result of the federal general election in that year, the projected increase in 2004 reflects both the impact of the election and the onset of two additional factors. First, the three political contribution tax credit thresholds were increased by \$200 each, for 2004 and subsequent years. Second, An Act to amend the Canada Elections Act and the Income Tax Act, which received Royal Assent on May 14, 2004, enables additional political parties to become registered and eligible for the tax credit.
- ⁴ The tax expenditure amount is the credit amount earned and claimed in the year. The October 2000 *Economic Statement and Budget Update* increased the education credit to \$400 per month for full-time students and \$120 per month for part-time students, effective January 1, 2001. The 2001 budget introduced a measure extending the education credit, beginning 2002, to people who receive taxable assistance for post-secondary education under certain government programs. Effective taxation year 2004, Budget 2004 extended the education credit to students who pursue post-secondary education related to their current employment, provided that their employer does not reimburse the cost of education in whole or in part.

Table 1

Personal Income Tax Expenditures (cont'd)

- ⁵ For a given year, the tax expenditure represents the value of education and tuition credits earned in past years and used in that year. The tax expenditure does not include the pool of unused education and tuition credits that have been accumulated but will be deferred for use in future years. For example, in taxation year 2005, it is projected that taxpayers will defer \$290 million of accumulated education and tuition credits for use in future years. In addition, the tax expenditure for the carry-forward for 2002 and beyond has increased by approximately 50% compared to last year's publication. This reflects the impact of changes introduced in taxation year 2000 (increase in the scholarship exemption) and 2001 (doubling of the education credit) on the stock of carried-forward credits used in 2002 and beyond.
- ⁶ The 2000 budget raised the exemption for scholarship, fellowship and bursary income from \$500 to \$3,000 for students eligible for the education credit. In addition, for 2000 and later tax years, the tax expenditure reflects the additional funds made available to students under the Canada Millennium Scholarship Foundation.
- ⁷ The tax expenditure equals the tax revenue foregone on the tax-sheltered income earned on registered education savings plan (RESP) assets, minus the revenue from taxing withdrawals of income (as an Educational Assistance Payment or Accumulated Income Payment) from RESPs.
- ⁸ Projections include the impact of the Canada Learning Bond introduced in the 2004 budget.
- ⁹ The tax expenditure reflects the higher value of the stock option deduction, which was increased to 50% in 2000 to reflect the reduced inclusion rate for capital gains. The results for 2000 and, to a lesser extent, 2001 were also affected by market appreciation, especially in the technology sector, as well as increased take-up. Projections for 2003 and subsequent years reflect an assumption of reduced market volatility and reduced take-up due to non-tax considerations.
- ¹⁰ This measure was proposed in the 2005 budget.
- ¹¹ Although the program year is July–June, payments are reported on a calendar year basis. The 2000 budget and the October 2000 *Economic Statement and Budget Update* fully indexed the Canada Child Tax Benefit (CCTB) starting January 2000, increased the per-child benefit amounts and the National Child Benefit (NCB) supplement and CCTB base benefit phase-out thresholds and, effective July 1, 2004, reduced the CCTB base benefit phase-out rates. The 2003 budget increased the NCB supplement, beyond indexation adjustments, by an annual amount of \$150 per child in July 2003, \$185 in July 2005 and \$185 in July 2006. The projections for 2003 to 2006 do not include the projections for the Child Disability Benefit, which are shown separately.
- ¹² The October 2000 *Economic Statement and Budget Update* increased the amount on which the caregiver and infirm dependant credit are based from \$2,368 to \$3,500 in 2001. The amount is indexed to inflation for subsequent years.
- ¹³ The spouse or common-law partner credit was previously known as the spousal credit. The eligible dependant credit was previously known as the equivalent-to-spouse credit.
- ¹⁴ Budget 2005 increased the basic personal amount by \$100 in both 2006 and 2007, and made corresponding increases to the amount for a dependent spouse or common-law partner and an eligible dependant.
- ¹⁵ The decline in this tax expenditure from 2000 to 2001 reflects, in part, reductions to the inclusion rate for capital gains from three-quarters to one-half in 2000.
- ¹⁶ The projected tax expenditure for 2004 is slightly higher than in other years due to the effects of the outbreak of avian flu in British Columbia. Because this provision is a deferral measure, the deferred income from 2004 will be reported in 2005, resulting in a negative tax expenditure that year.
- ¹⁷ Estimates are based on Statistics Canada data available up to 2004, which includes cash purchase tickets for wheat, barley, oats, canola, flax and rye. Projections after 2003 are calculated using a historical average growth rate.
- ¹⁸ The data for the Net Income Stabilization Account (NISA) program are observed up to 2004. Since NISA has been replaced by the Canadian Agricultural Income Stabilization (CAIS) program, tax expenditure projections reflect wind-down provisions that require amounts in NISA accounts be withdrawn by March 31, 2009. Projections also reflect recent data from Statistics Canada, which indicates that withdrawals from the government portion of NISA accounts reached record levels in 2004. It should also be noted that CAIS does not result in a tax expenditure.

Table 1

Personal Income Tax Expenditures (cont'd)

¹⁹ Data for unincorporated businesses is not available to estimate this tax expenditure with precision.

²⁰ The estimates and projections have been revised to reflect recent data and a one-year extension of the temporary measure announced in the 2004 budget. The negative figure for 2006 reflects the inclusion in income for that year of an amount equal to the credit claimed in 2005. A deduction for the full amount of the eligible exploration expenditure is allowed for the year for which the credit is claimed. An amount equal to the credit is required to be included in income the following year, however, so as to reverse the deduction in respect of the portion of the expenditure that was effectively paid for by the credit.

²¹ The 2000 budget reduced the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000. The October 2000 *Economic Statement and Budget Update* further reduced the capital gains inclusion rate from two-thirds to one-half, effective October 18, 2000. The estimates for this tax expenditure can vary significantly from year to year, primarily due to unanticipated year-to-year fluctuations in realized capital gains.

²² No data is available, as it is difficult to estimate the value of unsold assets.

²³ The decline in this tax expenditure for 2001 and subsequent years reflects the reduction in the capital gains inclusion rate from three-quarters to one-half in 2000. The decline from 2000 to 2001 is also the result of a 28% reduction in the number of claimants making use of this measure and a 26% reduction in the average amount of capital gain that they reported for the purpose of this measure.

²⁴ The tax expenditures for 2002 and 2003 are based on preliminary information on sales of shares of labour-sponsored venture capital corporations (LSVCCs) for those years; the decline in the tax expenditure is the result of reduced sales of LSVCC shares. Projections assume sales remain constant after 2003.

²⁵ The Child Disability Benefit (CDB) is delivered as a supplement to the Canada Child Tax Benefit. The CDB was introduced in the 2003 budget and came into effect in July 2003. The 2005 budget increased the maximum annual CDB from \$1,681 to \$2,000 per child beginning in July 2005. It also amended the disability tax credit to ensure that more individuals are eligible, which will consequently increase the number of children eligible for the CDB.

²⁶ The 2000 budget enhanced the disability tax credit (DTC) by extending eligibility to individuals requiring extensive therapy and by expanding the list of relatives to whom the DTC can be transferred. The 2000 budget also provided a \$2,941 supplement amount for children eligible for the DTC effective 2000. The October 2000 *Economic Statement and Budget Update* increased the amount on which the DTC is based from \$4,293 to \$6,000, and the amount of the supplement for children to \$3,500, effective 2001. Both amounts are indexed to inflation for subsequent years. The 2005 budget proposed to extend eligibility for the DTC to individuals who face multiple restrictions that together have a substantial impact on their everyday lives, and to amend the DTC to ensure that more individuals requiring extensive life-sustaining therapy on an ongoing basis are eligible.

²⁷ The increase in the projected tax expenditure reflects anticipated growth in medical expense claims as well as enhancements to the credit announced in the 2003, 2004 and 2005 budgets.

²⁸ The increase in the projected tax expenditure reflects anticipated growth in medical expense claims as well as the enhancement introduced in the 2005 budget (increase in the maximum amount of the supplement from \$571 to \$750 per year, effective 2005).

²⁹ The Guaranteed Income Supplement (GIS) and Allowance benefits are indexed for inflation by the Consumer Price Index. However, in both its frequency of application and in the months covered, the GIS indexation factor differs from that used for most of the parameters in the personal income tax system. Differences between the indexation factors cause the tax expenditure to grow at a faster or slower rate, in a given year, than if the two elements shared a common indexation factor.

³⁰ Although this measure does provide tax relief for individuals, it is implemented through the corporate tax system. See under "interest credited to life insurance policies" in Table 2 of this report for an estimate of the value of this tax expenditure.

³¹ The decline in this tax expenditure in 2001 reflects reductions in tax rates for low-income individuals in the 2000 budget and the October 2000 *Economic Statement and Budget Update*.

Table 1

Personal Income Tax Expenditures (cont'd)

- ³² Beginning in 2006, the Canadian Income Support Benefit will be established for eligible low-income veterans. Estimates and projections are based on data received from Veterans Affairs Canada.
- ³³ Beginning in 2006, the new Disability Award will replace the veterans' disability pension for eligible new applicants (current disability pensioners will be grandfathered).
- ³⁴ Estimates and projections vary from those in last year's report due to changes in tax rates and estimated projected levels of registered pension plan/registered retirement savings plan (RPP/RRSP) contributions, investment income and withdrawals. In particular, updated data indicate that RPP/RRSP investment income and RPP contributions were higher in certain years than was previously anticipated, resulting in higher tax expenditure estimates and projections. As well, starting in this year's report, the foregone tax on RPP and RRSP investment income is calculated by applying separate tax rates to the estimated amount of interest income, dividend income and capital gains (losses) implied by the overall rate of return on RPP/RRSP investments, taking into account the applicable tax treatment of each component. Year-to-year variations in the net tax expenditure associated with the tax foregone on RPP/RRSP investment assets declined in 2002, which significantly lowers the tax expenditure estimates with the tax foregone on RPP/RRSP investment income. Since the observed level of RPP and RRSP assets for 2000–2003 is used to determine the rate of return on investment, the tax expenditure will naturally vary from year to year, depending on the derived rate of return. Tax expenditure estimates will be higher in years where assets grow strongly, reflecting the tax foregone on that investment income, and lower in years where assets grow slowly or decline. For years where RPP and RRSP asset growth is projected, the tax expenditure projections are much more stable since a 6.4% nominal annual rate of return is used for those years. This is consistent with the rate of return used to calculate the present-value tax expenditure estimates and projections for RPPs and RRSPs (for more details on the derivation of the rate of return, see the paper "Present-Value Tax Expenditure Estimates of Tax Assistance for Retirement Savings" in the 2001 *Tax Expenditures and Evaluations* report).
- ³⁵ The ratio of 1999 RRSP assets reported in Statistics Canada's Survey of Financial Security (SFS) to 1999 RRSP assets reported in the Statistics Canada publication *Pension Plans in Canada* is used to adjust RRSP assets for 2000–2004 to reflect the more comprehensive SFS estimate, which includes funds in self-administered plans (the ratio is \$408 billion/\$268 billion or 1.52).
- ³⁶ The present-value estimates reflect the lifetime cost of a given year's contributions. This definition is different from that used for the cash-flow estimates and thus the two sets of estimates are not directly comparable. Further information on how these estimates are calculated is contained in the paper "Present-Value Tax Expenditure Estimates of Tax Assistance for Retirement Savings," which was published in the 2001 edition of this report.
- ³⁷ The present-value tax expenditure estimates for the 2000–2003 period presented in this year's report are lower than in last year's report due to updated estimates of applicable tax rates and adjustments to the methodology that better reflect the effect of all taxes on non-registered investments. These changes have also affected projections for the 2004–2007 period, but are offset by RPP contributions that are higher than previously anticipated in these years.
- ³⁸ The decline in the tax expenditure for the partial inclusion rate for 2001 reflects the reduction in the capital gains inclusion rate in 2000 from three-quarters to one-half. Projected tax expenditures reflect anticipated increases in home resales and resale housing prices. The estimates and projections for this tax expenditure can vary significantly from year to year. This is primarily the result of unanticipated year-to-year fluctuations in the number of residence resales and in the average price of residences.
- ³⁹ The 2000 budget increased the deduction limit from \$7,000 to \$10,000 for children eligible for the disability tax credit.
- ⁴⁰ The 2004 budget replaced the attendant care deduction with a broader disability supports deduction, beginning with the 2004 tax year. The 2005 budget proposed to expand the list of expenses eligible for the disability supports deduction.
- ⁴¹ Estimates and projections have been updated to reflect market conditions.
- ⁴² This includes employee- and employer-paid premiums by and for self-employed workers.

Table 1

Personal Income Tax Expenditures (cont'd)

- ⁴³ Prior to 2001, self-employed individuals could claim a non-refundable credit at the lowest marginal rate on the employer share of their Canada/Quebec Pension Plan contributions. For 2001 and subsequent years, self-employed individuals may deduct the employer share of their Canada/Quebec Pension Plan contributions paid for their own coverage. The estimates and projections shown are relative to a benchmark system in which no such deduction (or credit) is provided.
- ⁴⁴ Large increases relative to last year's projections reflect the availability of new data and higher oil and gas prices.
- ⁴⁵ This tax expenditure applies to a subset of resource-related deductions. Data are available for 1999 to 2003 on the volume of reclassified shares and are used to calculate the 2000- 2002 estimates and the 2003 projection. Due to volatility, the projections for 2004 to 2007 are based on a three-year historical average.
- ⁴⁶ A number of substantial methodological difficulties call into question the accuracy and utility of estimates and projections of the revenue implications of non-taxation of lottery and gambling winnings. The first methodological difficulty is that the data on payouts/winnings is incomplete. There is solid information on aggregate payouts only for government-run lotteries and bingos. Data on payouts at casinos, video lottery terminals, horseracing, and racetrack slot machines, which constitute a rising share of total spending on gaming, is fragmentary. In addition, no data is available on the payouts/winnings from activities sponsored by charities and other non-government organizations. Second, even if complete information on aggregate payouts were available, the revenue implications of non-taxation still could not be determined with precision. For example, if the benchmark tax system were to include taxation of gambling and lottery winnings, consideration would have to be given to including a deduction for expenses incurred in earning this income, i.e. ticket purchases or wagers/losses. This deduction could be allowed either against all income or against only lottery and gambling winnings. A threshold below which winnings would not be taxable would also be necessary, due to the large administrative cost of taxing very small prizes. In the absence of information on the distribution of prizes and the incomes of winners, the resulting potential tax base is difficult to estimate. Further, it would be impractical to tax some forms of winnings (e.g. slot machines) because of the way in which prizes are paid out.
Also, under federal-provincial agreements negotiated in 1979 and 1985, the federal government, in exchange for an ongoing payment, undertook to refrain from re-entering the field of gaming and betting and to ensure that the rights of the provinces in that field are not reduced or restricted.
- ⁴⁷ Allowances for members of Parliament and senators are no longer tax-exempt, effective January 2001.

Table 2

Corporate Income Tax Expenditures

	Estimates		Projections ¹					
	2000	2001	2002	2003	2004	2005	2006	2007
	(\$ millions)							
Charities, Gifts and Contributions								
Deductibility of charitable donations ²	375	410	270	290	320	340	355	355
Deductibility of gifts of cultural property and ecologically sensitive land ³	13	12	27	9	9	9	9	9
Deductibility of gifts to the Crown	S	S	S	S	S	S	S	S
Non-taxation of registered charities	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of other non-profit organizations (other than registered charities)	165	185	175	160	150	145	165	195
Political contribution tax credit	S	S	S	S	S	S	S	S
Culture								
Canadian film or video production tax credit	180	175	185	195	205	215	225	240
Non-deductibility of advertising expenses in foreign media ⁴	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Federal-Provincial Financing Arrangements								
Income tax exemption for provincial and municipal corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Transfer of income tax room to provinces ⁵	1,160	1,145	1,065	1,210	1,375	1,480	1,540	1,550
Logging tax credit	35	17	23	18	19	20	20	21
General Business and Investment								
Accelerated write-off of capital assets and resource-related expenditures	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral through capital gains rollovers ⁶	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Taxation of capital gains upon realization ⁷	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Partial inclusion of capital gains ⁸	2,340	4,095	1,990	2,010	2,045	2,125	2,240	2,345
Expensing of advertising costs ⁹	57	63	40	40	40	40	40	40

¹ The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, published in 2004 and available on the Department of Finance Canada website (www.fin.gc.ca), for a discussion of the reasons for this.

Table 2
Corporate Income Tax Expenditures (cont'd)

	Estimates		Projections ¹					
	2000	2001	2002	2003	2004	2005	2006	2007
	(\$ millions)							
Atlantic investment tax credit ¹⁰	82	105	89	100	105	110	115	120
Earned and claimed in current year	15	18	7	13	13	14	14	14
Earned in current year but carried back to prior years	170	220	220	200	205	210	210	215
Claimed in current year but earned in prior years	267	343	316	313	323	334	339	349
Total expenditure								
Scientific research and experimental development investment tax credit ¹⁰	1,490	1,745	1,785	1,830	1,870	1,915	1,965	2,010
Earned and claimed in current year	71	86	88	90	92	94	95	100
Earned in current year but carried back to prior years	545	490	505	515	525	540	550	565
Claimed in current year but earned in prior years	2,106	2,321	2,378	2,435	2,487	2,549	2,610	2,675
Total expenditure	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Write-off of capital assets before available for use								
Small Business								
Deduction of allowable business investment losses ¹¹	34	28	26	25	23	23	24	26
Interest on small business financing loans ¹²	\$	—	—	—	—	—	—	—
Low tax rate for small businesses ¹³	3,225	3,185	3,220	3,040	3,010	3,040	3,185	3,210
Accelerated rate reduction for small businesses ¹⁴	—	50	65	35	5	—	—	—
Non-taxation of provincial assistance for venture investments in small business	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
International								
Exemption from Canadian income tax of income earned by non-residents from the operation of a ship or aircraft in international traffic	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemption from tax for international banking centres	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemptions from non-resident withholding tax ¹⁵								
Dividends	205	275	275	255	265	395	450	470
Interest								
On deposits	495	375	170	105	105	110	115	120
On long-term corporate debt	130	195	130	165	165	175	180	190
Other ¹⁶	380	220	340	435	330	355	365	385

Table 2

Corporate Income Tax Expenditures (cont'd)

	Estimates		Projections ¹					
	2000	2001	2002	2003	2004	2005	2006	2007
	(\$ millions)							
Rents and royalties								
Copyright royalties	23	22	24	30	28	30	32	34
Royalties for the use of, or right to use, other property	20	87	83	79	84	89	94	99
Research and development royalties	3	3	4	3	3	3	4	4
Natural resource royalties	S	S	S	S	S	S	S	S
Rents from real property	S	S	S	S	S	S	S	S
Management fees	48	42	44	49	50	53	56	58
Estate or trust income	33	11	21	6	14	14	15	16
Non-taxation of life insurance companies' world income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tax exemption on income of foreign affiliates of Canadian corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sectoral Measures								
Farming								
Cash-basis accounting	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of income from destruction of livestock	S	S	S	S	S	3	S	S
Deferral of income from grain sold through cash purchase tickets ¹⁷	S	-15	15	S	S	S	S	S
Flexibility in inventory accounting	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Agricultural cooperatives ¹⁸	-	-	-	-	-	-	30	30
Resource								
Corporate mineral exploration tax credit ¹⁹	-	-	-	26	32	58	55	64
Deductibility of contributions to a qualifying environmental trust	S	S	S	S	S	S	S	S
Earned depletion ²⁰	40	43	21	34	37	39	35	32
Net impact of the resource allowance and the non-deductibility of Crown royalties and mining taxes ²¹	415	295	435	595	615	640	300	-
Tax rate on resource income ²²	-	-60	-215	-395	-575	-515	-255	-
Transitional arrangement for the Alberta Royalty Tax Credit	-	-	-	S	S	S	S	S
Other Sectors								
Exemption from branch tax for transportation, communications, and iron ore mining corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Film or video production services tax credit ²³	62	80	75	120	125	130	135	145
Low tax rate for credit unions ²⁴	53	75	79	69	65	70	72	73

Table 2
Corporate Income Tax Expenditures (cont'd)

	Estimates		Projections ¹					
	2000	2001	2002	2003	2004	2005	2006	2007
				(\$ millions)				
Manufacturing and processing allowance ²⁵	2,045	1,380	1,060	640	115	—	—	—
Surtax on the profits of tobacco manufacturers ²⁶	-40	-80	-75	-75	-75	-75	-75	-75
Temporary tax on the capital of large deposit-taking institutions ²⁷	-49	—	—	—	—	—	—	—
Other Measures								
Deductibility of countervailing and anti-dumping duties	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deductibility of earthquake reserves	6	7	5	5	5	5	6	6
Deferral through use of billed-basis accounting by professional corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Holdback on progress payments to contractors ²⁸	30	25	40	40	40	40	40	40
Interest credited to life insurance policies ²⁹	90	66	68	76	78	81	83	86
Non-taxation of certain federal Crown corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Memorandum Items								
<i>Mechanisms for the Integration of Personal and Corporate Income Tax</i>								
Investment corporation deduction ³⁰	S	S	S	S	S	5	6	7
Refundable capital gains for investment corporations and mutual fund corporations ³¹	690	520	35	60	305	320	335	350
Refundable taxes on investment income of private corporations ³²								
Additional Part I taxes ³³	-615	-655	-690	-925	-1,200	-1,455	-1,620	-1,715
Part IV tax	-1,735	-2,110	-1,990	-2,225	-2,425	-2,555	-2,715	-2,845
Dividend refund	3,245	4,150	3,900	3,745	4,095	4,330	4,610	4,855
Net expenditure	895	1,385	1,220	595	470	320	275	295
<i>Expenses Incurred to Earn Income</i>								
Deduction for intangible assets	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deductibility of provincial royalties (joint venture payments) for the Syncrude project (remission order) ³⁴	n.a.	n.a.	n.a.	n.a.	n.a.	—	—	—
<i>Loss Offset Provisions</i>								
Capital loss carry-overs	190	420	730	180	125	85	85	85
Net capital losses carried back ³⁵	475	445	230	205	205	215	225	235
Net capital losses applied to current year	18	18	19	19	19	19	20	21
Farm and fishing loss carry-overs								

Table 2

Corporate Income Tax Expenditures (*continued*)

	Estimates		Projections ¹				
	2000	2001	2002	2003	2004	2005	2006
	(\$ millions)						
Non-capital loss carry-overs							
Non-capital losses carried back	1,760	2,840	1,390	1,500	1,390	1,440	1,535
Non-capital losses applied to current year	4,790	3,480	3,625	3,670	3,875	3,765	3,790
<i>Other</i>							
Aviation fuel excise tax rebate ³⁶	n.a.	—	—	—	—	—	—
Non-resident-owned investment corporation (NRO) refund ³⁷	280	280	415	125	—	—	—
Partial deduction of meals and entertainment expenses ³⁸	355	340	345	340	340	355	375
Patronage dividend deduction ³⁹	190	240	390	365	385	410	425
							430

Notes:

¹ Unless otherwise indicated in the footnotes, changes in the projections from those in last year's edition of this document as well as variations from year to year result from changes in the explanatory economic variables upon which the projections are based. These changes and variations also reflect the availability of new data. Projections for 2002 and subsequent years reflect the impact of the reduction in the general corporate income tax rate to 25% on January 1, 2002, 23% on January 1, 2003 and 21% on January 1, 2004. The corporate surtax raised these rates by 1.12 percentage points.

² Donations in 2000 and 2001 were significantly higher than the historical average. Donations in the projection period are expected to return to their historical average.

³ Gifts in 2002 were significantly higher than the historical average. Gifts in 2003 and subsequent years are expected to return to their historical average.

⁴ This treatment should result in a negative tax expenditure since the deduction of an expense incurred to earn income is denied. Under the benchmark tax system, advertising expenses in foreign media incurred to gain or produce income from a business or property would be deductible whether targeted at foreign or domestic markets.

⁵ The drop in 2002 is explained by a significant reduction in corporate taxable income in that year.

⁶ This is a tax expenditure because under the benchmark system capital gains would be taxed on an accrual basis.

⁷ The tax deferral associated with taxation of capital gains upon disposition of property, rather than on an accrual basis, represents a deviation from the benchmark tax system and is therefore a tax expenditure.

⁸ The 2000 budget reduced the capital gains inclusion rate from three-quarters to two-thirds, effective February 28, 2000. The October 2000 *Economic Statement and Budget Update* further reduced the capital gains inclusion rate from two-thirds to one-half, effective October 18, 2000. The increase in this tax expenditure for 2001 reflects increased capital gains and the reduction in the capital gains inclusion rate, partially offset by a lower corporate income tax rate. The decline in 2002 reflects a projected decrease in capital gains as well as the reduction in the corporate income tax rate.

Table 2

Corporate Income Tax Expenditures (*cont'd*)

- ⁹ The amount of this tax expenditure can fluctuate significantly from year to year depending primarily upon advertising expenses claimed. Therefore, it is projected at its historical average.
- ¹⁰ In previous years, data limitations prevented the split between the scientific research and experimental development and Atlantic investment tax credit of investment tax credits earned in the current year but carried back to prior years and those claimed in the current year but earned in prior years.
- ¹¹ The amount of this tax expenditure can fluctuate from year to year depending upon the amount of current year losses and the availability of income against which to apply these losses.
- ¹² This measure was effective between February 25, 1992, and the end of 1994. The five-year maximum term for small business financing loans means, however, that the measure continued to create a tax expenditure up to 1999. Further, many firms reporting income in the 2000 taxation year earned a portion of that income in the 1999 calendar year, before the tax expenditure was eliminated.
- ¹³ The reduction in the tax expenditure from 2002 to 2004 results from reductions in the benchmark rate. Projections for 2003 and subsequent years reflect the impact of the 2003 budget's increase in the amount of income eligible for the small business deduction, and the 2004 budget's acceleration of this increase.
- ¹⁴ This measure was announced in the 2000 budget and became effective January 1, 2001. On that date the general federal corporate income tax rate on income between \$200,000 and \$300,000 earned by a Canadian-controlled private corporation from an active business carried on in Canada was reduced to 21%. The lower rate on the general income of small businesses and the change in the general federal corporate income tax rate effective January 1, 2001, only partially affect the estimate for tax year 2001 since many firms reporting income in the 2001 tax year earned a portion of that income in the 2000 calendar year, before the rate reductions were introduced. Subsequent declines in the tax expenditure are a result of the reduction in the general corporate income tax rate and the increase, announced in the 2003 budget, in the amount of income eligible for the small business deduction. This measure was effectively eliminated on January 1, 2004, when the general corporate income tax rate was reduced to 21%. Some tax expenditure occurs in 2004, however, as many firms reporting income in the 2004 tax year earned a portion of that income in the 2003 calendar year. The changes in the estimates for this year relative to last year are due to the availability of new data.
- ¹⁵ Estimates and projections were computed on the basis of an analysis of payments to non-residents and withholding tax collections available for 2000 to 2003. The variations in 2001, 2002 and 2003 reflect changes in the payments and exemptions as observed from newly available data.
- ¹⁶ This category includes interest paid to non-resident persons or organizations that would be exempt from income tax in Canada were they residents in Canada. Also included is interest paid under certain securities-lending arrangements exempt under subparagraph 212(1)(b)(xii) of the Income Tax Act, and interest exempt under certain other domestic and treaty provisions.
- ¹⁷ Projections are calculated using a historical average growth rate. Since tax expenditures are estimated on a cash-flow basis, an increase in the balance of uncashed grain tickets represents additional income that is being deferred and results in a positive tax expenditure. A decrease in the balance of uncashed grain tickets indicates that less income is being deferred and results in a negative tax expenditure. The tax expenditure estimates and projections are volatile over time since a small number of corporations are affected in a very specific sector. Estimates and projections are based on data obtained from Statistics Canada.
- ¹⁸ This measure will apply only to patronage dividends paid after 2005. See the "What's New in the 2005 Report" section at the beginning of this document for further details.
- ¹⁹ This tax credit was introduced in the 2003 budget and applies to 2003 and subsequent tax years. It was phased in starting at 5% in 2003, 7% in 2004 and 10% in subsequent years.
- ²⁰ Additions to earned depletion pools were eliminated as of January 1, 1990. Determination of the tax expenditure reflects the projected use of existing earned depletion pools.

Table 2

Corporate Income Tax Expenditures (*cont'd*)

- ²¹ The tax expenditure is calculated as the revenue cost of the resource allowance net of non-deductible Crown royalties and provincial mining taxes. Over a five-year period beginning in 2003, the resource allowance is being phased out and a deduction for Crown royalties and mining taxes phased in so that, by 2007, the tax expenditure is effectively reduced to zero. See the technical paper "Improving the Income Taxation of the Resource Sector in Canada," Department of Finance Canada, March 2003, for further details. The large increases relative to last year reflect the availability of new data and higher oil and gas prices.
- ²² Budget 2003 announced an extension to resource income of the lower general corporate tax rate, to be phased in over five years beginning in 2003. By 2007, when the resource rate equals the general rate, the tax expenditure amount will be reduced to zero. See the technical paper "Improving the Income Taxation of the Resource Sector in Canada," Department of Finance Canada, March 2003. The increases relative to last year reflect the availability of new data and higher oil and gas prices.
- ²³ Projections for 2003 and subsequent years reflect the impact of the 2003 budget increase in the rate of the credit from 11% to 16%.
- ²⁴ The tax expenditure is higher in 2001 and 2002 due to higher taxable income of credit unions. After 2002, projections are lower due to reductions in the general corporate income tax rate.
- ²⁵ Although this tax expenditure was eliminated on January 1, 2004, when the general corporate income tax rate was reduced to 21%, many firms reporting income in the 2004 taxation year earned a portion of that income in the 2003 calendar year.
- ²⁶ The increase in this tax expenditure from 2000 to 2002 partly results from the increase in the tobacco manufacturers' surtax from 40% to 50% of the Part I tax on profits from tobacco manufacturing, effective April 6, 2001.
- ²⁷ This measure expired on October 31, 2000.
- ²⁸ The amount of this tax expenditure can fluctuate significantly from year to year depending primarily upon the level of construction activity. Therefore, it is projected at its historical average.
- ²⁹ The tax expenditure is lower in 2001 and 2002 because of personal income tax reductions. The increase in subsequent years is due to higher investment income.
- ³⁰ This measure allows a public corporation that qualifies as an investment corporation to benefit from elements of the integration system, which are usually available only to private corporations.
- ³¹ The substantially lower levels in 2002 and 2003 are due to a decline in capital gains distributions.
- ³² Refundable tax provisions of the corporate income tax system provide some integration of the corporate and personal income tax regimes. For more information about these measures, please refer to the document *Tax Expenditures: Notes to the Estimates/Projections* (2004) available on the Department of Finance Canada website at www.fin.gc.ca.
- ³³ This item includes the additional 6²/₉% refundable tax on investment income as well as, for years after 2000, the Part I tax paid on investment income in excess of the benchmark rate. The increase after 2001 results from the increase in the difference between the Part I tax on investment income and the benchmark rate.
- ³⁴ The cost of the Syncrude Remission Order ("Order Respecting the Remission of Income Tax for the Syncrude Project" P.C. 1976-1026, May 6, 1976 [C.R.C. 1978 Vol. VII, c. 794]) is published annually in the Public Accounts of Canada (ISBN 0-660-177792-7). The order expired on December 31, 2003.
- ³⁵ The increases in 2001 and 2002 reflect, for the most part, the capital losses recorded in these two years resulting from declines in the market value of technology stocks.

Table 2

Corporate Income Tax Expenditures (cont'd)

³⁶ This measure, which was effective for calendar years 1997 to 2000, provided an excise tax rebate on the aviation fuel used by airline companies. The rebate was limited to \$20 million per year per associated group of companies. In order to receive a rebate, a company had to agree to reduce its income tax losses by \$10 for every \$1 of rebate.

³⁷ Figures for 2000 to 2003 are estimates. This measure was repealed in 2000. To allow for an orderly restructuring of their operations, however, existing NROs were entitled to retain their status until the end of their last tax year that began before 2003. The sharp decline in 2003 relative to last year's estimate reflects much lower than projected total refunds.

³⁸ Fifty per cent of these expenses are deductible for income tax purposes, given that a portion of meal and entertainment expenses is incurred to earn income and is therefore a legitimate business expense, while the remaining portion reflects personal consumption. The estimates and projections provided reflect the additional tax revenue that would be received if no deduction were allowed.

³⁹ Patronage dividends are somewhat discretionary and vary from year to year. The projections are higher after 2001 due to larger patronage dividend distributions.

Table 3

GST Tax Expenditures*

	Estimates				Projections			
	2000	2001	2002	2003	2004	2005	2006	2007
(\$ millions)								
Aboriginal Self-Government								
Refunds for Aboriginal self-government ^{1,2}	S	S	S	S	S	S	S	S
Business								
Exemption ³ for domestic financial services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemption for ferry, road and bridge tolls ⁴	S	S	S	S	S	S	S	S
Exemption and rebate for legal aid services	20	25	25	25	30	30	30	30
Non-taxability of certain importations ⁵	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Rebates for foreign visitors ⁶	80	85	85	65	75	75	80	85
Small suppliers' threshold	145	160	170	175	190	200	205	215
Zero-rating ⁷ of agriculture and fish products and purchases	S	S	S	S	S	S	S	S
Zero-rating of certain purchases made by exporters	S	S	S	S	S	S	S	S
Charities and Non-Profit Organizations								
Exemption for certain supplies made by non-profit organizations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Rebates for registered charities ¹	215	240	250	265	280	295	310	325
Rebates for non-profit organizations ¹	55	60	60	65	70	70	75	80
Education								
Exemption for education services (tuition) ⁴	360	375	400	435	460	485	515	545
Rebates for book purchases made by qualifying public institutions	40	40	40	40	45	50	60	75
Rebates for colleges ¹	65	80	85	85	90	95	100	105
Rebates for schools ¹	350	375	380	380	395	415	440	460
Rebates for universities ¹	150	180	205	240	255	265	280	295

The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, published in 2004 and available on the Department of Finance Canada website (www.fin.gc.ca), for a discussion of the reasons for this.

Table 3

GST Tax Expenditures (cont'd)

	Estimates				Projections			
	2000	2001	2002	2003	2004	2005	2006	2007
	(\$ millions)							
Health Care								
Exemption for health care services ⁴	530	535	570	630	655	695	745	805
Rebates for hospitals ¹	340	390	395	425	445	505	540	565
Zero-rating of medical devices ⁴	125	140	150	160	170	175	190	200
Zero-rating of prescription drugs ⁴	460	500	545	585	615	645	685	730
Households								
Exemption for child care and personal services ⁴	135	135	135	135	140	150	160	170
GST/HST credit ⁸	2,965	3,005	3,070	3,180	3,310	3,420	3,495	3,565
Zero-rating of basic groceries ⁴	3,230	3,415	3,565	3,700	3,880	4,090	4,335	4,605
Housing								
Exemption for sales of used residential housing and other personal-use real property	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemption for residential rent (long-term) ⁴	1,295	1,280	1,320	1,375	1,430	1,510	1,625	1,755
Rebates for new housing ⁹	590	640	790	845	970	1,015	945	920
Rebates for new residential rental property ¹⁰	25	40	45	50	55	60	55	55
Municipalities								
Exemption for municipal transit ⁴	90	95	105	105	110	115	120	130
Exemption for water and basic garbage collection services ⁴	145	150	160	165	175	180	195	205
Rebates for municipalities ^{1,11}	645	700	725	805	1,475	1,540	1,635	1,710
Memorandum Items								
<i>Recognition of Expenses Incurred to Earn Income</i>								
Rebates to employees and partners ¹²	105	105	110	110	110	110	110	115
<i>Other</i>								
Exemption for quick method accounting	190	200	205	220	230	245	255	265
Partial input tax credits for meals and entertainment expenses ¹³	115	120	125	130	140	145	150	160

Table 3

GST Tax Expenditures (cont'd)**Notes:**

- ¹ The public sector body rebates are based on Canada Revenue Agency administrative data for the years up to and including 2003. The projected values for 2004 onwards are based on the Sales Tax Model of the Department of Finance Canada.
- ² These refunds are paid to Aboriginal governments that have an agreement providing for a GST/HST refund for goods and services acquired for self-government activities.
- ³ Final consumers and businesses pay no tax on exempt goods and services. Vendors, however, are not entitled to claim input tax credits to recover the GST/HST paid on inputs to these products.
- ⁴ The Sales Tax Model used to generate these estimates is based on the 2001 national input-output tables from Statistics Canada and the latest release of the National Income and Expenditure Accounts.
- ⁵ Certain importations are tax-free including, for example, duty-free personal importations by Canadian travellers.
- ⁶ The methodology for estimating this tax expenditure was derived as part of the review of the Visitors' Rebate Program conducted during 1997 and has been updated to reflect more recent information. The reduction in rebates for foreign visitors, beginning in 2003, reflects a reduction in the number of foreign visitors to Canada.
- ⁷ Final consumers and businesses pay no tax on zero-rated goods and services. Vendors of zero-rated products are entitled to claim input tax credits to recover the GST/HST paid on inputs to these products.
- ⁸ Based on personal income tax data.
- ⁹ Estimates for the housing rebate are based on information provided by Statistics Canada.
- ¹⁰ The new residential rental property rebate was introduced in the 2000 budget for new construction or substantial renovations commencing after February 27, 2000.
- ¹¹ The rebate rate for municipalities increased from 57.14% to 100% effective February 1, 2004.
- ¹² This item includes the apprentice vehicle mechanics' tools deduction.
- ¹³ Based on tax expenditure estimates and projections reported for the personal and corporate income tax systems.

PART 2
EVALUATION REPORT
MARGINAL EFFECTIVE TAX RATES
ON BUSINESS INVESTMENT:
METHODOLOGY AND ESTIMATES
FOR CANADIAN AND US JURISDICTIONS

INTRODUCTION

The decision to invest is highly sensitive to the rate of return generated by the asset. Taxes imposed on businesses affect the rate of return and hence the amount of investment undertaken. While the statutory corporate income tax rate is a key indicator of how the tax system is affecting investment, it does not paint a complete picture. The effective tax rate on investment can be different because of deductions and credits available through the corporate income tax system as well as other taxes paid by corporations, such as capital taxes.

These considerations have led to the development of what are known as marginal effective tax rates (METRs) in order to provide a comprehensive indicator of the impact of the corporate tax system on the decision to invest. METRs can also give a perspective on how the tax system is affecting the allocation of investment by type of asset and by industry. Finally, a comparison of METRs in various jurisdictions provides an indicator of how taxes are affecting the distribution of investment within Canada and of the international competitiveness of the Canadian tax system.

Since 2000, the federal government has substantially reduced taxes on business investment while improving the tax structure. The motivation for these tax reductions has been to increase investment and productivity and ultimately raise incomes and living standards of Canadians.

In a globalized economy, the impact of tax reductions on internationally mobile capital is a key determinant of their effectiveness. Implemented and planned tax reductions would result in a combined federal-provincial-territorial statutory tax rate that is considerably lower than its US equivalent by 2010. But when all elements of the tax system are taken into consideration, the Canadian advantage narrows significantly. In addition, the overall advantage hides large differences across jurisdictions in both countries, making it more difficult to assess the overall impact of the corporate tax system on competitiveness.

Recent federal tax policy initiatives have improved the tax structure by:

- Eliminating the federal capital tax, which is a particularly harmful way to raise tax revenue.
- Applying the same rate of corporate income tax to all sectors.
- Aligning capital cost allowances with useful lives for selected assets.

The analysis undertaken in this study indicates, however, that variations remain in the tax burden on new investment across jurisdictions, assets and industries. These variations can distort investment choices, which harms economic performance.

MARGINAL EFFECTIVE TAX RATES—METHODOLOGY

A marginal effective tax rate is a forward-looking indicator of the tax burden on new investment. It includes not only the statutory tax rate but also deductions and credits associated with purchasing capital goods (e.g. interest expense and capital cost allowance) and other taxes paid by corporations, such as capital taxes. A METR measures the extra return on an investment required to pay corporate-level taxes, expressed as a percentage of the total return on the investment.¹

Tax Parameters

The METRs presented in this study capture the following elements of the tax system:

- Statutory income tax rates.
- Research and development (R&D) tax incentives.
- Interest deductibility.
- Investment tax credits.
- Capital cost allowances.
- Capital taxes.
- Inventory accounting methods.
- Retail sales taxes on capital goods.

The METRs exclude property taxes and other business taxes imposed by municipal governments.² The main reason for their exclusion is that part of local taxes represents a fee for services received, but data limitations preclude determination of the fee-for-service element.

Most of the items listed above are well-known elements of the tax system, but some background information on capital cost allowances, inventory accounting and retail sales taxes is helpful in understanding their impact on METRs.

¹ A detailed description of the METR methodology is available in Patry, A. and D. Lemay, "Marginal Effective Tax Rates for Canadian and US Jurisdictions: Methodology and Estimates," Department of Finance Canada Working Paper, forthcoming. The pioneering work on Canadian METRs is presented in: Boadway, R., N. Bruce, and J. Mintz (1984), "Taxation, Inflation, and the Effective Marginal Tax Rate on Capital in Canada," *Canadian Journal of Economics*, vol. 17, p. 262-79. The methodology and estimates are also discussed in McKenzie, K., M. Mansour, and A. Brûlé (1998), "The Calculation of Marginal Effective Tax Rates," Working Paper 97-15, prepared for the Technical Committee on Business Taxation, Department of Finance Canada; Jung, J., "The Calculation of Marginal Effective Corporate Tax Rates in the 1987 White Paper on Tax Reform," Working Paper 89-6, Department of Finance Canada.

² In contrast to Canada, municipalities in some US states impose sales taxes or corporate income taxes as well as broad-based property taxes. This is an issue in at least nine states, including California, New York and Pennsylvania. The amount of revenue raised appears, however, to be small relative to total corporate taxes imposed by the federal and state governments.

Capital cost allowance (CCA) is a deduction for tax purposes that recognizes the annual expense resulting from the depreciation of a capital asset over its useful life. CCA rates will therefore have an impact on the METR only to the extent that they do not accurately reflect the useful lives of assets. In the METR model, the useful lives of assets are approximated by economic depreciation rates developed by Statistics Canada.

The choice of *inventory accounting methods* can influence tax liabilities. There is usually a lag between when goods are produced and when they are sold. Under first-in, first-out (FIFO) accounting, the cost of goods sold is determined by the cost of the oldest inventory item, i.e. the first in. As a result, in an inflationary environment, company profits and taxable income are higher than if the cost of goods sold were determined by current production costs, which would be well approximated by the last item placed in inventory, as it is in the last-in, first-out (LIFO) inventory accounting convention. This difference in taxable income results in a higher METR under FIFO accounting than under LIFO. Firms are permitted to use LIFO accounting for tax purposes in the US but not in Canada.

Retail sales taxes are imposed not only on consumer spending but also on intermediate materials and capital goods used by businesses. Most retail sales tax structures provide some exemptions for capital goods, particularly for machinery and equipment. Nevertheless, the effective retail sales tax rate on capital inputs was about half of the nominal rate in both Canada and the US in 2000. As a result, retail sales taxes have a substantial impact on the METR on capital. In contrast, under value-added taxes (such as the goods and services tax/harmonized sales tax and the Quebec sales tax) the effective tax rate on capital goods is virtually zero.³

The federal, provincial and territorial tax parameters used in the model are presented in Annex A and their US counterparts are presented in Annex B.

Economic Assumptions and Caveats

Calculation of METRs also requires making assumptions about the financial cost of capital and a number of other economic variables. The financial cost of capital is a weighted average of the return on debt and equity paid by firms. The weights are determined by the economy-wide debt-equity ratio of approximately two-thirds. The returns on debt and equity are measured in real terms (i.e. observed returns are reduced by the inflation rate, assumed to be 2%) and adjusted for risk. The adjustment for risk recognizes that suppliers of capital require a premium for investing in riskier assets, but in the long run expect to obtain the same real, risk-adjusted rate of return on all

³ The only exceptions to the zero-tax status of capital goods are road vehicles less than 3,000 kg. used by business in Quebec.

investments.⁴ Note that these economic assumptions are used to develop estimates for both Canada and the US in order to restrict Canada-US comparisons to differences in the tax systems in the two countries. That is, the comparisons examine the impact of applying the Canadian and US corporate tax systems to the same investment in Canada.

While METRs are the most comprehensive measure of the impact of corporate taxes on the rate of return and hence the decision to invest, they do have two important limitations.

- *METRs are calculated on the assumption that a taxable firm makes an investment that is small relative to its ongoing operations.* As a result, the firm can always apply the deductions and credits earned on a new investment against taxable income earned on earlier investments. Start-ups and firms suffering periodic losses face a higher effective tax rate over the life of the investment to the extent that they cannot make immediate use of deductions and credits.
- *The investment is assumed to earn just enough to pay suppliers of financial capital the minimum rate of return.* It is assumed that a firm will only undertake investments that are expected to generate at least enough income (net of wages and other direct production costs and depreciation) to pay for the financial cost of capital and taxes. Projects that are expected to exceed this hurdle rate will be undertaken first, and the expected return on the last, or marginal, project carried out will be exactly equal to the financial cost of capital plus a provision for taxes. Firms investing with the expectation of earning more than the minimum rate of return would be particularly concerned about the statutory rate, since all income above the minimum return is taxed at the statutory rate.

The METRs presented in this study exclude mining and the extraction of oil and natural gas as well as financial institutions.⁵ In addition, the aggregate estimates exclude the impact of R&D tax incentives since a relatively small number of firms receive most of the benefits. R&D incentives are discussed in the context of their impact on METRs in industries that invest intensively in R&D. Finally, the estimates apply to large firms only.

⁴ The risk-free rate of return on debt is assumed to be 6%, which is the average return on Government of Canada 10-year bonds over the 10-year period ending in 2004. The risk-free return on equity is not observed in the marketplace. It can however, be estimated by imposing the long-run condition that the return on debt and equity, net of personal taxes, be equal and then calculating the implicit gross-of-tax return on equity. Average personal tax rates of 24.9% on bonds and 16.2% on equity (dividends plus the effective rate on capital gains), along with 6% return on debt, imply a gross-of-tax risk-adjusted return on equity of 5.4%. Given a 60% share for equity financing, the weighted average return to suppliers of financial capital is 5.6% in nominal terms and 3.6% in real terms.

⁵ Modelling natural resource industries and financial institutions raises a number of unique issues that are still under review. The estimates will be made public when this review is complete.

Measuring the Competitiveness of a Tax System

The statutory tax rate on corporate income is often used as an indicator of how the tax system is contributing to retaining and attracting internationally mobile capital. It is readily available for international comparisons, highly visible and easily understood. In addition, comparisons of statutory rates provide a key measure of the incentive for multinational enterprises to shift taxable income across international boundaries.

The marginal effective tax rate combines in a single measure the key elements of the overall corporate tax structure, including the statutory tax rate that applies on corporate income, factors that affect the tax base such as capital cost allowances, and profit-insensitive taxes such as capital and sales taxes. As a result, it is a more comprehensive indicator of tax competitiveness than the statutory rate.

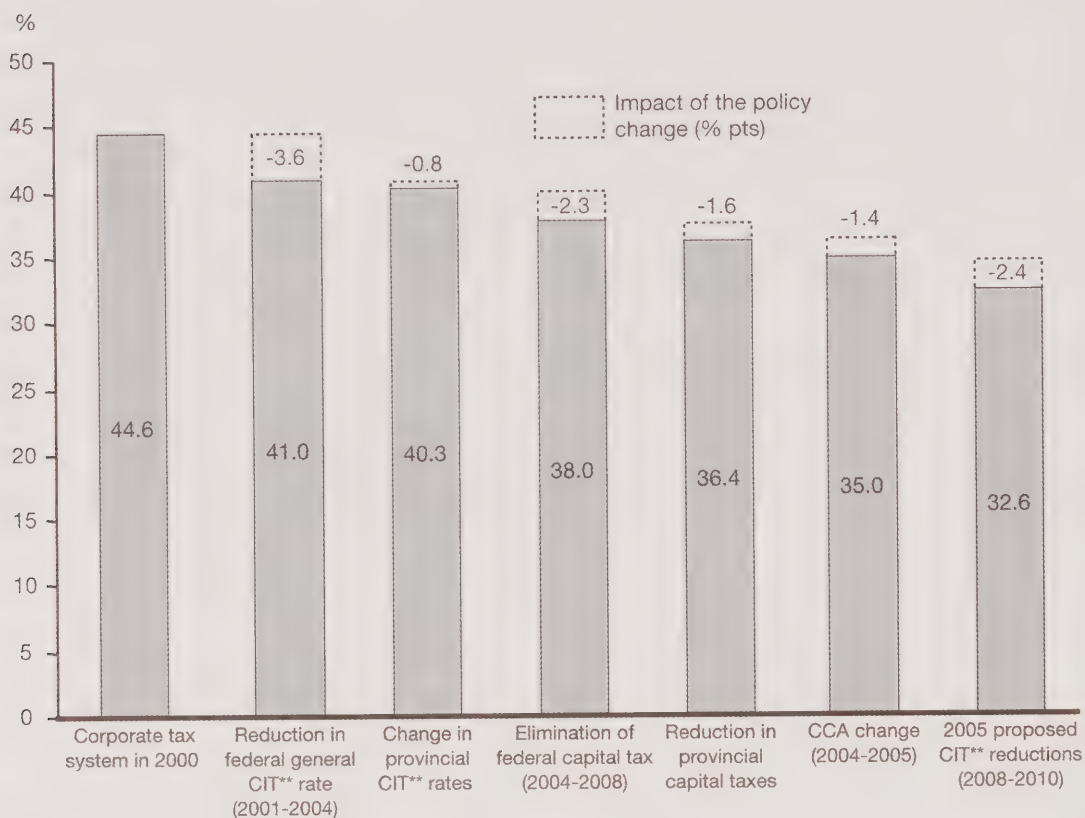
There are, however, circumstances in which the statutory rate is a more relevant indicator of competitiveness. A key assumption underlying the METR calculations is that the investment has an expected rate of return, adjusted for risk and inflation, equal to the minimum return required by the suppliers of financial capital. While this appears to be a reasonable assumption for firms already active in the Canadian market, it has been argued that foreign direct investment generates rates of return that are above the minimum required rate. As noted in the text, firms investing with the expectation of earning substantially more than the minimum return would be particularly sensitive to differences in statutory rates.

These considerations suggest that it is important to consider both the statutory rate and the marginal effective tax rate when assessing the competitiveness of a tax system.

EVOLUTION OF THE NATIONAL METR IN CANADA

In 2000, the combined federal-provincial-territorial effective tax rate on a typical marginal investment by a large firm was estimated to be approximately 45% (Chart 1). Policy decisions since 2000, together with those proposed in the 2005 federal budget, would have the effect of reducing the METR at the end of the federal government's five-year planning horizon in 2010 by about a quarter, to just under 33%. Federal initiatives would reduce the METR by 9.7 percentage points, which amounts to 80% of the total decline from 2000 to 2010. The statutory tax rate reductions proposed in Budget 2005 would contribute 2.4 percentage points to the decline in the METR.

Chart 1
Impact of Recent Corporate Tax Reductions
on the Canadian METR*



* Excluding resource industries, financial institutions and R&D assets.

** Corporate income tax.

Since 2000, the federal government has:

- Reduced the general corporate income tax rate from 28% to 21% and applied the general rate to all sources of income earned by large firms (phased in by 2007 for resource income).
- Legislated the elimination of the capital tax, which will be phased out by 2008.
- Aligned CCA rates with useful lives for a number of assets, in particular computers as well as broadband, Internet and other data network infrastructure equipment.

In Budget 2005, the federal government proposed a reduction in the general corporate income tax rate of a further 2 percentage points to 19% in 2010 and the elimination of the 4% corporate income surtax (equivalent to a 1.12-percentage-point reduction in the general rate) in 2008.

Key tax reduction initiatives at the provincial level have been:⁶

- A 50% reduction in Ontario's capital tax by 2010 and elimination by 2012.
- A 50% reduction in Quebec's capital tax, financed by a 3-percentage-point increase in the statutory corporate income tax rate.
- The elimination of British Columbia's capital tax.
- Reductions in statutory corporate income tax rates in Alberta and New Brunswick (4 percentage points) and in British Columbia and Manitoba (3 percentage points).

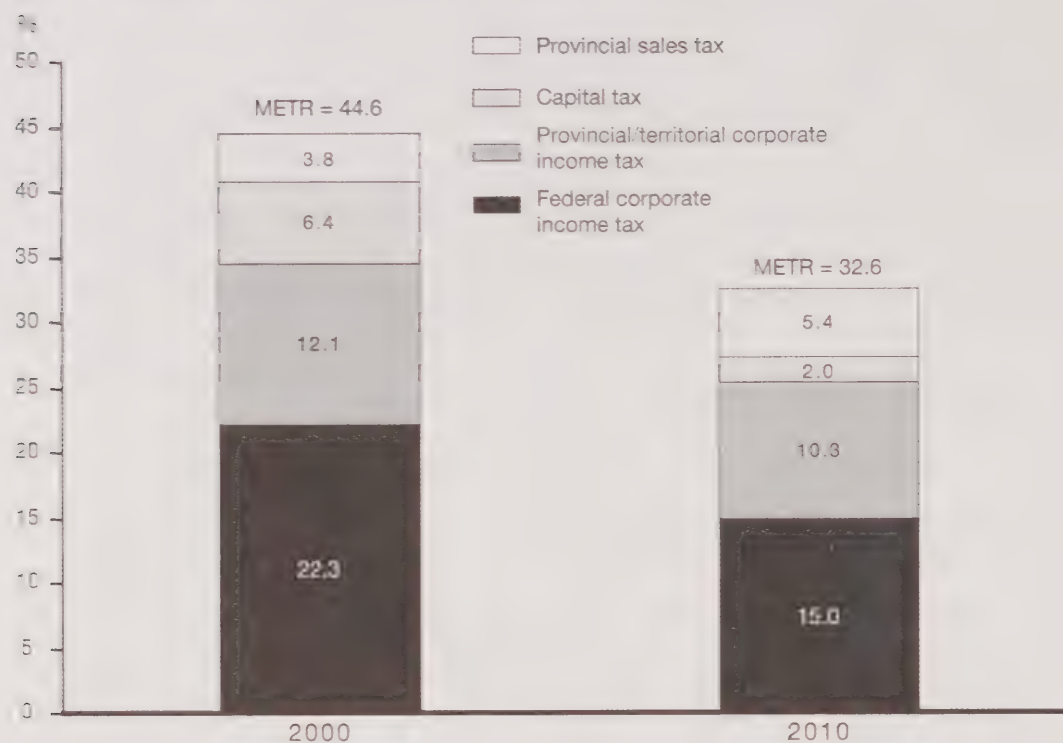
As a result of these initiatives, the structure of taxation in Canada will improve substantially by 2010. Capital taxes, which are a particularly damaging way to raise revenues,⁷ will add 2 percentage points to the national METR in 2010, down from 6.4 percentage points in 2000 (Chart 2).⁸ Note also that the federal corporate income tax METR will decline by a third from 2000 to 2010.

⁶ Measures proposed after September 15, 2005, are not included.

⁷ See "Taxation and Economic Efficiency: Results From a General Equilibrium Model," *Tax Expenditures and Evaluations*, 2004, Department of Finance Canada.

⁸ Since no substantial changes to provincial retail sales taxes on capital goods are expected over the 2000-2010 period, they become a larger share of the total tax burden.

Chart 2
Decomposition of Canadian METR
in 2000 and 2010*



* Excluding resource industries, financial institutions and R&D assets.

CANADA-US COMPARISON

The statutory rate reductions implemented since 2000, coupled with the proposed reductions announced in Budget 2005, would give Canada a 6.2-percentage-point advantage over the US by 2010 (Table 1). METR calculations show that Canada's advantage is reduced to about 2 percentage points when the effect of other elements of the tax system on business investment is factored in⁹ (Chart 3). Canada's statutory rate advantage is eroded by other elements of the corporate tax system, notably provincial/state capital taxes, investment tax credits and inventory accounting practices. Note also that the Canadian statutory tax rate advantage is reduced by interest deductibility, since deductibility is worth more in the US given the higher statutory tax rate.

Table 1
Statutory Tax Rates on Corporate Income—Canada and the US Combined Federal/Provincial/Territorial-State

	Canada	US	Difference (Canada-US)
	(%)		(% pts)
<i>2000</i>			
General income	43.4	39.4	4.1
Manufacturing	34.7	39.4	-4.7
Combined	39.5	39.4	0.1
<i>2010</i>			
General income	32.2	39.4	-7.1
Manufacturing	31.2	36.5	-5.3
Combined	31.9	38.0	-6.2

In both countries, capital cost allowances are, on average, somewhat higher than warranted by the useful lives of assets, thereby putting downward pressure on the METR.¹⁰ This effect is slightly more pronounced in the US than in Canada, which causes an erosion of 0.4 percentage points in Canada's statutory rate advantage.

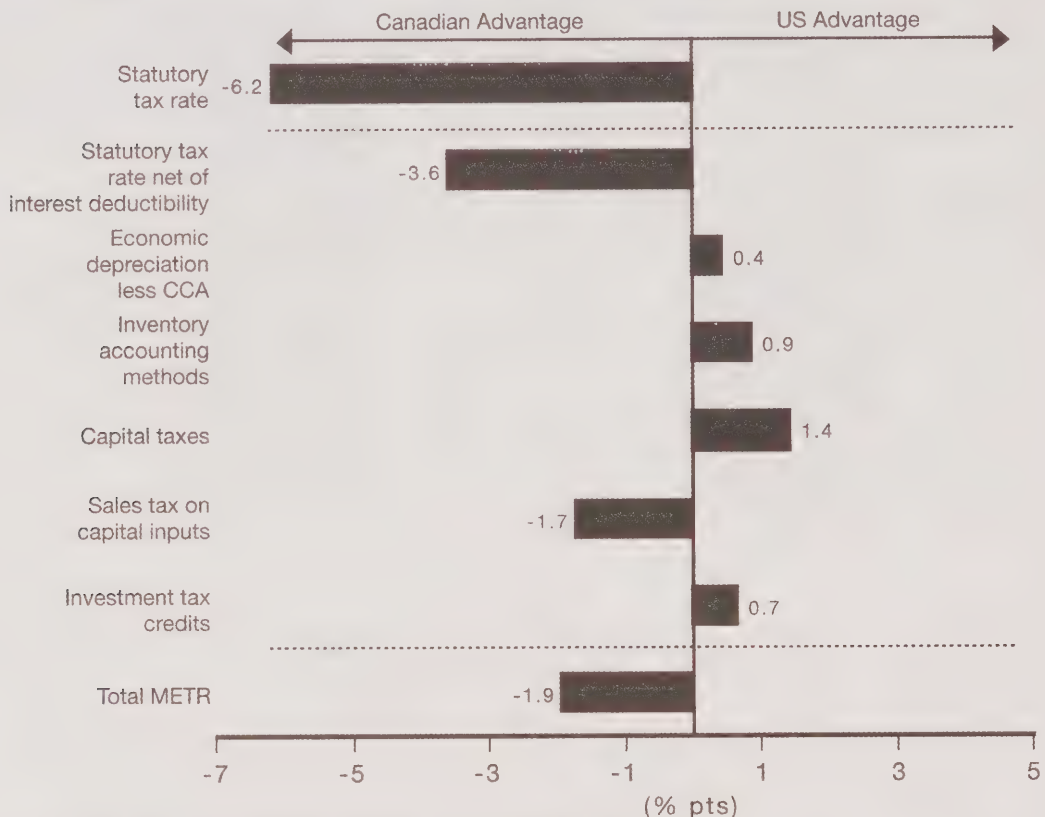
As discussed earlier, firms are permitted to use LIFO inventory accounting for tax purposes in the US but not in Canada. Survey information indicates, however, that LIFO inventory accounting is used by less than half of US firms, in part because only taxable firms experiencing rising inventory values can reduce tax liabilities by adopting LIFO inventory accounting. Further, there are disadvantages associated with switching accounting methods, so a potential reduction in taxable income may not be sufficient to

⁹ Recall that Canadian economic assumptions are used to develop METRs for both the US and Canada.

¹⁰ This comparison does not include the impact of inflation on the real value of CCA.

induce firms to adopt LIFO accounting.¹¹ In the absence of solid information on the use of LIFO accounting, the estimates in this study are based on the somewhat arbitrary assumption that half of taxable US firms use LIFO. As a result, the increased flexibility in inventory accounting gives the US an METR advantage of 0.9 percentage point.

Chart 3
Decomposition of the METR on Business Investment*
(% Point Contribution to the Canada-US Gap in 2010)



* Excluding resource industries, financial institutions and R&D assets.

¹¹ A survey of 600 large publicly traded firms conducted by the American Institute of Certified Public Accountants (AICPA) indicates that the share of firms using LIFO accounting for some or all of their inventories declined from 47% in 2000 to 42% in 2003. Less than 4% of firms in the sample used LIFO exclusively while 14% used LIFO for less than 50% of inventories on average over the 2000 to 2003 period. See AICPA, *Accounting Trends and Techniques*, 58th edition, 2004, p. 177. For a discussion of reasons why firms choose particular inventory accounting methods, see Cushing, Barry E. and Marc J. Leclerc, "Evidence on the Determinants of Inventory Accounting Policy Choice," *The Accounting Review* (April 1992), p. 355-66. Reasons cited by taxable firms for choosing FIFO (or average cost) over LIFO include concerns about reporting lower net income and a lower value of inventories on the balance sheet; declining inventories from either price or volume effects; and higher bookkeeping costs.

In Canada, five provincial governments impose capital taxes, while in the US about one-third of the states have capital taxes. As a result, capital taxes subtract 1.4 percentage points from Canada's statutory rate advantage in 2010.¹²

Almost all US states impose retail sales taxes that affect the price of capital goods, while only five Canadian provinces do so. Although sales taxes add to the Canadian advantage overall, they put the five provinces that levy retail sales taxes at a disadvantage relative to most US states—the average effective sales tax rate on capital goods is 3.5% in the five Canadian provinces compared to 2.8% on average in the US.

In Canada, investment tax credits (ITCs) offered by the federal government (the Atlantic investment tax credit) and by Saskatchewan, Manitoba and Prince Edward Island reduce the national METR by 0.9 percentage points. In the US, 19 states offer ITCs,¹³ which reduce the US national METR by 1.5 percentage points.

US tax reductions since 2000 have played only a minor role in reducing Canada's statutory rate advantage. While the US did introduce temporary increases in tax depreciation, the only permanent change has been a 3.15-percentage-point reduction in the tax rate on manufacturing and processing income, which will reduce the US overall METR by 1.1 percentage points by 2010.

The statutory income tax rate reductions proposed in the 2005 federal budget would make a substantial contribution to the improvement in Canada's competitive position. In the absence of these reductions, Canada's 1.9-percentage-point advantage would be transformed into a slight disadvantage (see box below).

¹² Elimination of Ontario's capital tax in 2012 will narrow this gap to roughly 0.5 percentage points.

¹³ ITCs designed to promote regional development within a state are not included.

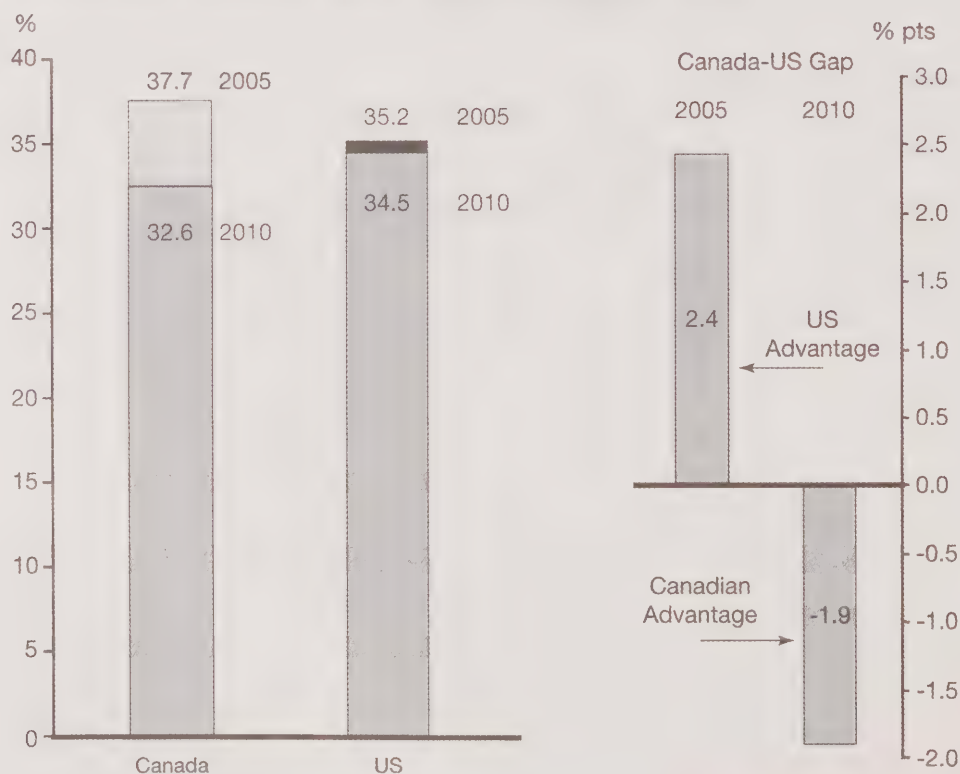
Planned Policy Changes Would Create a Canadian Advantage

Planned corporate tax reductions would establish a Canadian METR advantage by 2010 (see chart). Legislated and proposed policy initiatives are projected to reduce the Canadian METR by 5.1 percentage points from 2005 to 2010.

- At the federal level, completing the phase-out of the capital tax by 2008 and implementing the tax cuts in Budget 2005 would trim 4.2 percentage points from the METR by 2010.
- At the provincial level, Ontario's decision to halve its capital tax by 2010 (and eliminate it by 2012) would subtract 0.7 percentage points from the METR while Quebec legislation reducing its capital tax by 50% (and making up the revenue loss through a higher corporate income tax rate) would cause the national METR to fall 0.2 percentage points by 2010.

The US METR is projected to decline 0.7 percentage points from 2005 to 2010, when a 3.15-percentage-point reduction in the federal tax rate on manufacturing and processing income is fully implemented. The net impact of planned tax reductions would therefore be to change a 2.4-percentage-point Canadian disadvantage in 2005 to a 1.9-percentage-point Canadian advantage in 2010.

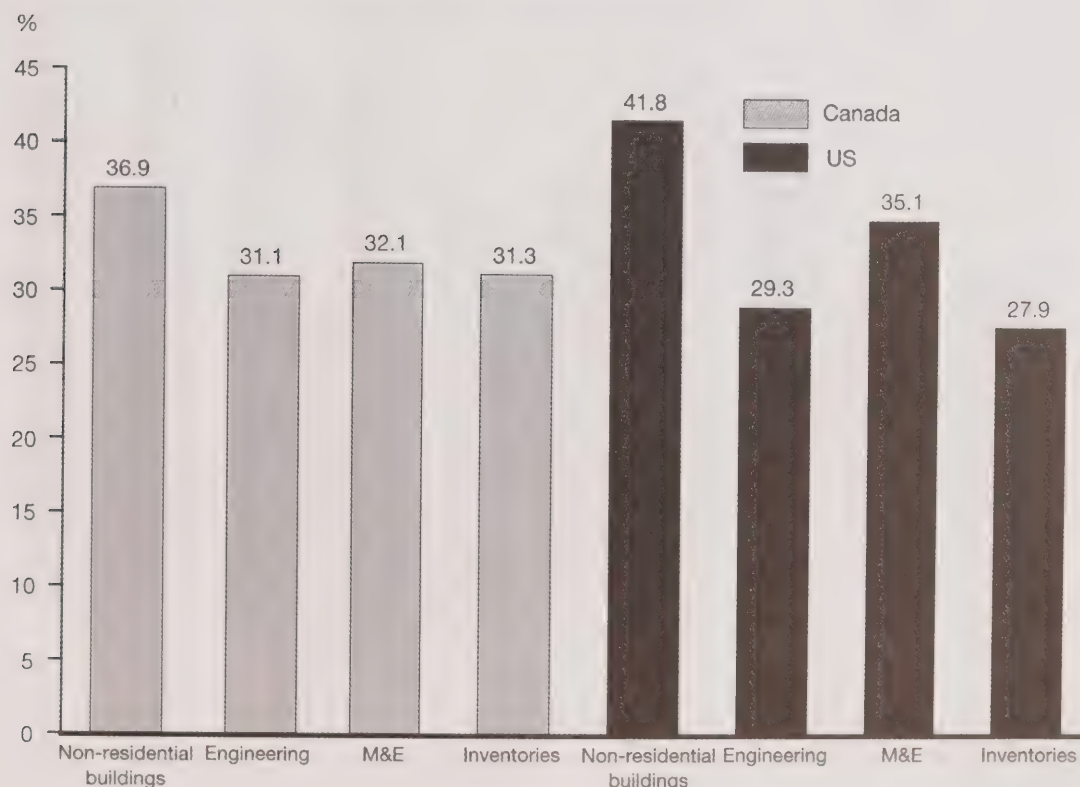
Canadian and US METRs in 2005 and 2010



ESTIMATES BY ASSET AND SECTOR

There is substantial variation in METRs for the major asset groupings (machinery and equipment (M&E), non-residential buildings, engineering structures and inventories) under the US tax system, but the variance is much less pronounced in Canada (Chart 4). In the US, the highest effective rate is on buildings, reflecting a large gap between tax and economic depreciation rates. M&E is subject to substantially higher taxation via sales taxes than buildings and engineering assets. This non-neutral treatment distorts the composition of investment, which harms economic efficiency. The relative uniformity of effective tax rates in Canada reflects the net outcome of several factors: differences in the extent of accelerated depreciation, which raises the METR for buildings; retail sales taxes that fall disproportionately on M&E; and the absence of LIFO inventory accounting.

Chart 4
Canadian and US METRs by Asset in 2010*

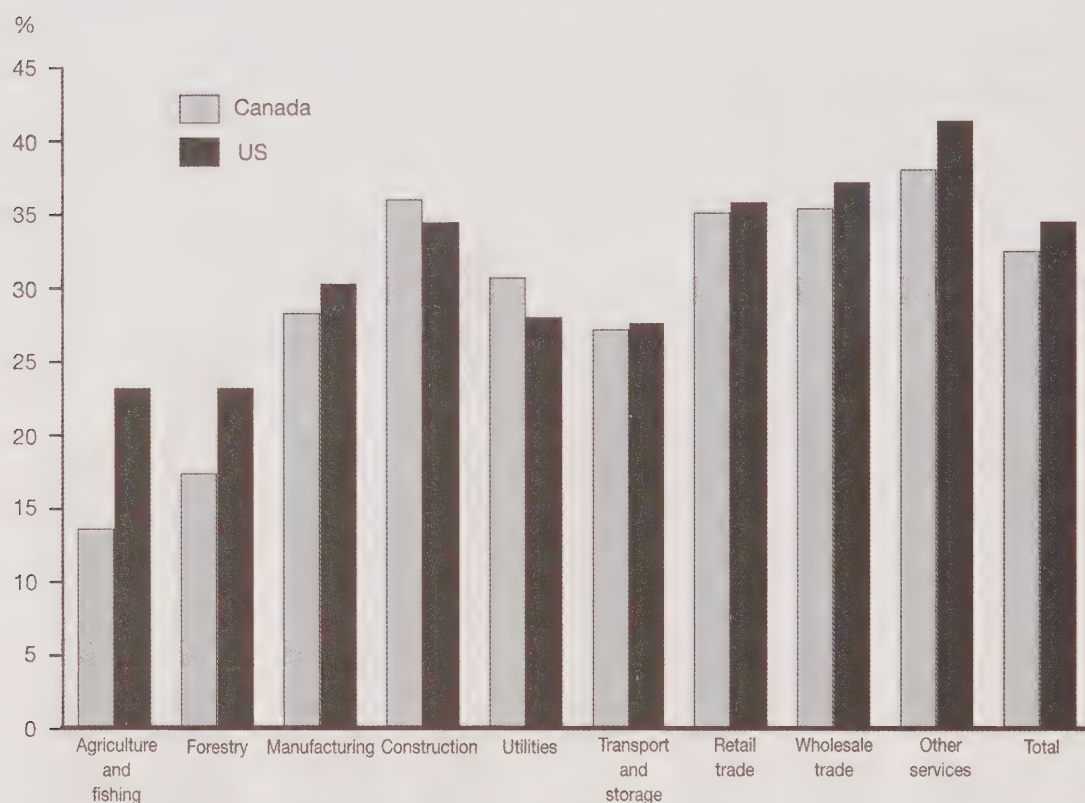


* Excluding resource industries and financial institutions.

Since asset use is not the same across industries, the differences in effective tax rates by asset contribute to the substantial variability in METRs by industry observed for both countries (Chart 5). Other factors contributing to sectoral variability of METRs include:

- Special CCA rates for M&E used in Canadian manufacturing.
- Low tax rates on manufacturing income offered by sub-national jurisdictions in Canada and both levels of government in the US.
- Industry-specific sales tax exemptions.

Chart 5
Canadian and US METRs by Industry in 2010*



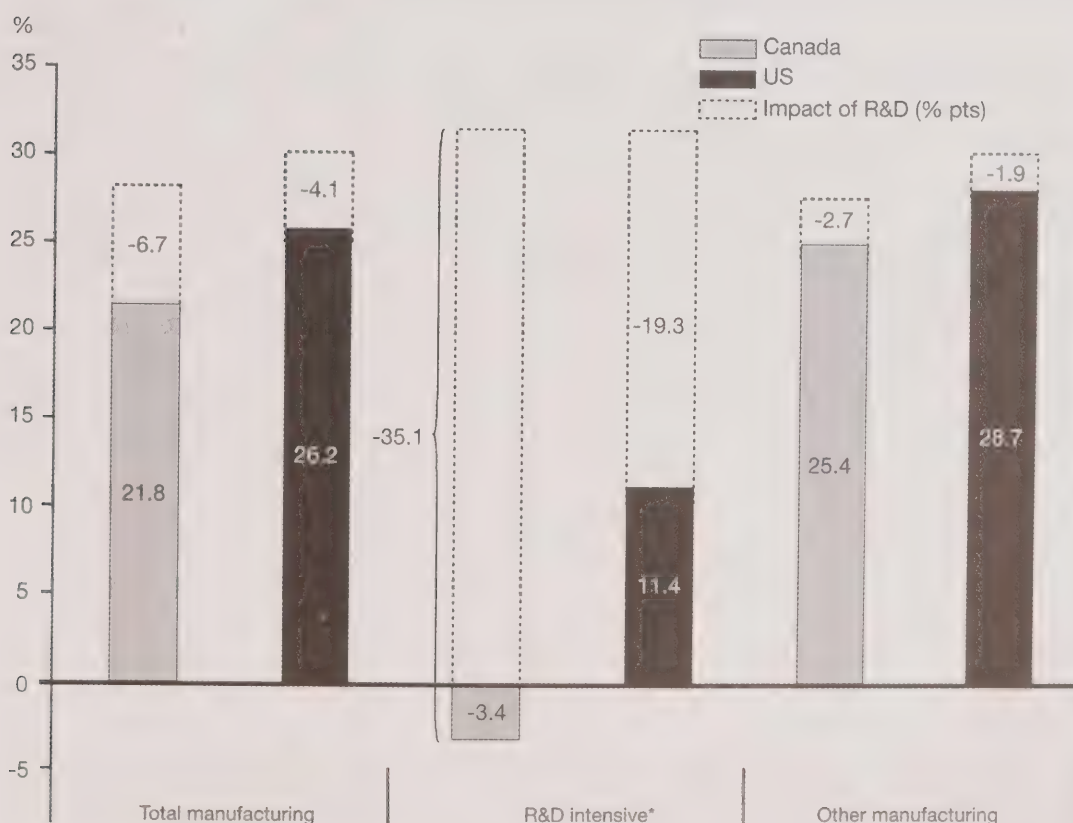
* Excluding resource industries, financial institutions and R&D assets.

Tax competitiveness in manufacturing is often a particular concern since a substantial portion of both international trade and foreign direct investment occur in that sector. This concern may, however, be overstated given the strong linkages between manufacturing and a wide range of service industries, as manufacturers work with designers, software companies and other service sector firms to bring products to market.

With these linkages and the benefits of avoiding tax-induced distortions in mind, the federal government's approach to tax competitiveness is to provide low, common income tax rates for firms in all sectors while improving the tax structure by, for example, eliminating the particularly damaging capital tax. This approach was evident in the Government's proposal in Budget 2005 to implement further broad-based statutory rate reductions in response to the US tax reduction for manufacturing and processing industries.

As in the case of the aggregate METR, Canada's statutory tax rate advantage in manufacturing is eroded by provincial/state capital taxes, less generous investment tax credits and the absence of LIFO accounting. Canada's advantage in manufacturing METRs widens when R&D incentives are included¹⁴ (Chart 6). But as stated earlier, most of these incentives are received by a relatively small number of firms operating in a narrow range of manufacturing industries.

Chart 6
Canada-US METRs for Manufacturing in 2010



* R&D investment represents at least 25% of total investment.

¹⁴ 65% of R&D spending takes place in manufacturing industries.

In recognition of the substantial spillovers on the rest of the economy, investment in R&D is subsidized by the tax system (as indicated by significant negative METRs on R&D in Table 2)¹⁵ in Canada and the US. In particular, labour and other current expenditures, which together represent much of the R&D asset, are eligible for an R&D tax credit in both countries. The net tax subsidy is much larger in Canada largely because the investment tax credits in the US are generally limited to current expenditures exceeding a firm-specific base amount, whereas the credits apply to all current and capital R&D expenditures in Canada. In addition, all Canadian jurisdictions except Quebec allow the immediate write-off of capital assets (except buildings) purchased in order to undertake R&D while normal tax depreciation schedules apply in the US. Note, however, that purchases of eligible tangible capital account for less than 10% of R&D expenses. The substantial subsidy provided to R&D results in a negative total METR for R&D intensive industries in Canada and a total METR for these industries that is less than half the rate in other manufacturing industries in the US (Chart 6). The impact of procurement policies and government grants on R&D is not included in this comparison.

Table 2
Canada and US METRs for R&D Intensive Industries

	Canada	US	Difference (Canada-US)
	(%)		(% pts)
METRs			
Total assets	-3.4	11.4	-14.8
Tangible assets	31.7	29.8	1.9
R&D	-53.7	-17.0	-36.7

¹⁵ The METR is not calculated in the same way for R&D assets as for other capital assets. The reason for the difference is that R&D is an asset produced, not purchased, by firms. R&D is undertaken using labour (researchers), capital (scientific equipment and buildings) and current expenditures on such items as heating and lighting. The tax treatment of all three inputs determines the METR on R&D. In the absence of any tax incentives, the METR on R&D labour and other current expenses is zero since they are deductible expenses, and the METR on R&D capital is similar to that on other purchased capital assets. The tax credit payable on labour and other current expenditures results in negative METRs for these inputs. In Canada, the combination of tax credits and immediate deductibility results in a negative METR for capital costs as well.

SENSITIVITY ASSESSMENT

The METR estimates for Canada and the US presented above are developed from a common set of assumptions about inflation, the financial structure of firms, the required rate of return on investment, and the useful lives of assets. Assumptions must also be made about how best to model the impact or utilization of various tax measures in the two countries.

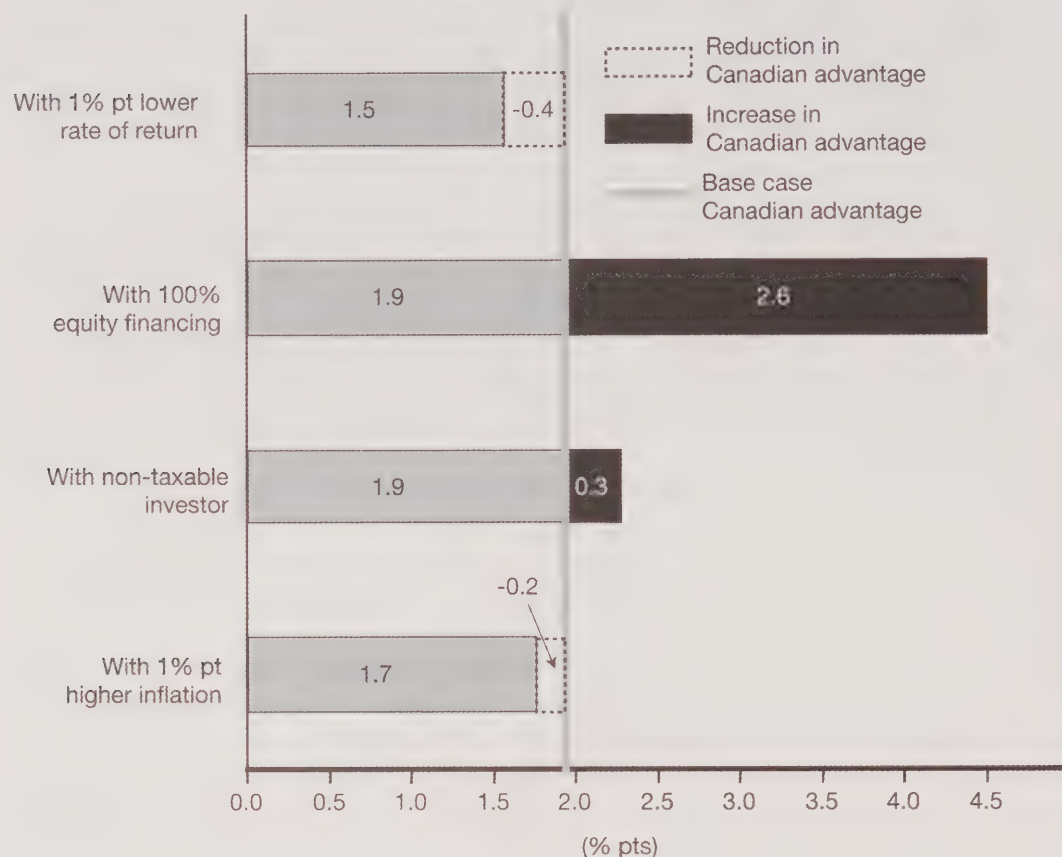
Changes in the common assumptions will affect Canada-US comparisons because they interact with the tax system. Differences in statutory rates play a particularly important role in this context. For example, a lower required rate of return would decrease tax payable in both countries, but relatively more in the US because of a higher statutory rate. As a result, the Canadian advantage declines slightly to 1.5 percentage points with a 1-percentage-point decrease in the required rate of return (Chart 7). Similarly, the deductibility of interest expense reduces the after-tax cost of debt financing, so a decrease in the share of debt relative to equity would increase the METR in both countries, but relatively more in the US because of the higher statutory rate. With 100% equity financing, which is an assumption often used by firms to assess specific projects,¹⁶ Canada would have a more substantial advantage over the US (Chart 7).

The financial cost of capital to firms is calculated assuming that Canadian personal taxes affect the required return to savers.¹⁷ Given the global nature of capital markets, however, it could be argued that the marginal supplier of financial capital to Canadian firms is a foreign saver, such as a taxable individual from the US. The relationship between the personal tax rate on interest and the rate on equity in the US is, however, quite similar to that in Canada, so there would be little impact on the required return to suppliers of financial capital from making this change. Given the large pool of capital held in tax-exempt accounts (pension funds and registered retirement savings plans), it would also be plausible to assume that the marginal supplier is non-taxable. Making such an assumption would increase the rate of return and, as indicated in the previous paragraph, slightly widen the Canada-US advantage (Chart 7).

¹⁶ Project analysis differs from the METR framework in two other important respects. First, required rates of return are typically not adjusted for risk. Second, the project is a stand-alone investment, so the entity undertaking it cannot take immediate advantage of all deductions and credits during the early years of operation, when profits are non-existent or low. This increases the effective tax rate on the project relative to the METR framework, which assumes the investment is small relative to the ongoing operations of the firm.

¹⁷ More precisely, the relationship between taxes on interest income and equity determines the relationship between the gross-of-tax rates of return on bonds and equity. See footnote 4.

Chart 7
Canadian METR Advantage/Sensitivity Analysis*



* Excluding resource industries, financial institutions and R&D assets.

Changes in the inflation rate have more complex interactions with the tax system. Higher inflation causes nominal interest rates to rise, which lowers the METR in both countries (but relatively more in the US) through the impact on interest deductibility.¹⁸ Higher inflation also reduces the real value of CCA, which is specified in nominal terms, thereby boosting the METR. The net effect arising from interest deductibility and CCA expressed in nominal terms is a small rise in the METR in both countries, but the absence of LIFO accounting puts additional upward pressure on the METR in Canada, causing the Canada-US gap to edge down (Chart 7).

The METR estimates are sensitive to the gap between CCA rates and useful lives, which are approximated in the model by economic depreciation rates provided by Statistics Canada. Based on the official Statistics Canada estimates, CCA rates in both Canada and

¹⁸ Note that higher inflation does not directly affect the required real return on financial capital.

the US are on average more than adequate to reflect useful lives. These depreciation rates are, in part, based on analytical work undertaken in the 1980s and hence do not reflect recent developments.¹⁹

Statistics Canada therefore launched a review of economic depreciation rates in order to make use of more recent data gathered by the agency. Analysis undertaken to date strongly suggests that the official economic depreciation rates are too low, which means that useful lives of assets are overstated.²⁰ While these updated results are preliminary, further revisions are likely to be small compared to the observed increase relative to the current official estimates. As a result, the METRs reported in this study are based on the preliminary updated estimates of economic depreciation rather than the official estimates. The revised rates raise the Canadian METR by 11 percentage points²¹ and result in much more uniform METRs across assets (Chart 8). Note that CCA rates remain, on average, adequate to reflect useful lives.

The provisions of the alternative minimum tax (AMT) may also affect the US estimates. The METR methodology assumes that firms are able to make immediate use of all deductions and credits related to capital investment; but in some cases the AMT will cause firms to delay using deductions and credits, thereby reducing their value and increasing the effective tax rate.²² The AMT affects firms that control a material portion of the capital stock, but these firms are subject to the AMT for only a short period of time,²³ which would result in a relatively small impact on the effective tax rate.

¹⁹ A case in point is the depreciation rate for computers. The official Statistics Canada data indicate that the depreciation rate for computers is 30%, which implies a useful life of approximately seven years. There is, however, widespread recognition that useful lives of computers are substantially shorter. Budget 2004 therefore increased the CCA rate on computers to 45%, which is broadly consistent with a useful life of five years.

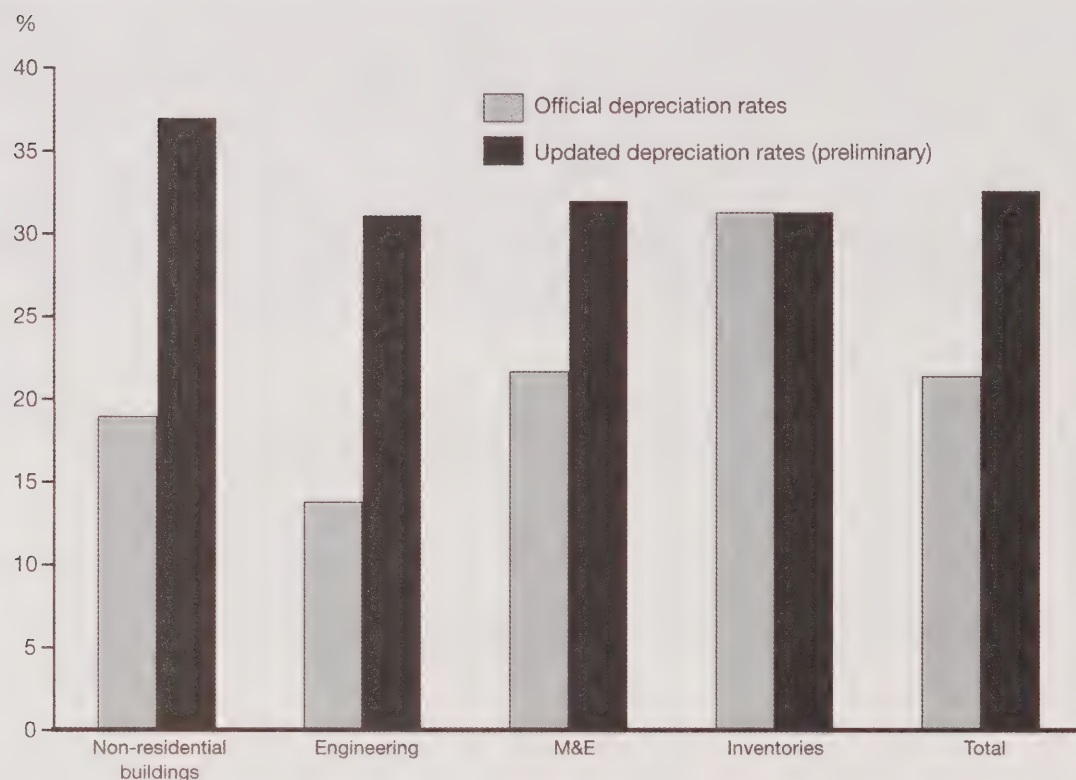
²⁰ See Gellatly, G., M. Tanguay, and Y. Beiling (2002), "An Alternative Methodology for Estimating Economic Depreciation: New Results Using a Survival Model," *Productivity Growth in Canada*, Statistics Canada, Cat. #15-204-XPE; Tanguay, M. (2005), "Linking Physical and Economic Depreciation: A Joint Density Approach"; and Patry, A. (2005), "Economic Depreciation and Retirements of Canadian Assets: A Comprehensive Empirical Study," Statistics Canada Working Paper, forthcoming.

²¹ The rise in the US METR is somewhat greater. The increase in economic depreciation (net of CCA) raises the required return, which has a bigger impact on the METR given the higher statutory tax rate in the US.

²² More precisely, the AMT may cause firms either to pay more than their regular tax liability, for which they will obtain a credit against future tax liabilities, or to delay claiming deductions and credits when determining their "regular" tax liabilities.

²³ Firms affected by the AMT are estimated to have accounted for about a quarter of all corporate assets in 1998, down from almost 50% of corporate assets in 1990. The duration on the AMT was, however, no more than two years for about half of affected firms over the 1993-98 period. See Carlson, Curtis P., "Who Pays the Corporate Alternative Minimum Tax? Results from Panel Data for 1987-98," National Tax Association Proceedings, 94th Annual Conference on Taxation (p. 349-356).

Chart 8
Impact of Updated Depreciation Rates on Canadian METRs*



* Excluding resource industries, financial institutions and R&D assets.

Sensitivity Analysis: Summary

METR estimates are sensitive to the assumptions made about:

- Economic variables such as the inflation rate.
- The financial structure of the firm, particularly the extent of debt financing or leverage.
- The real rate of return earned on the marginal project.
- The best way to model the impact or utilization of the various tax measures in the two countries.

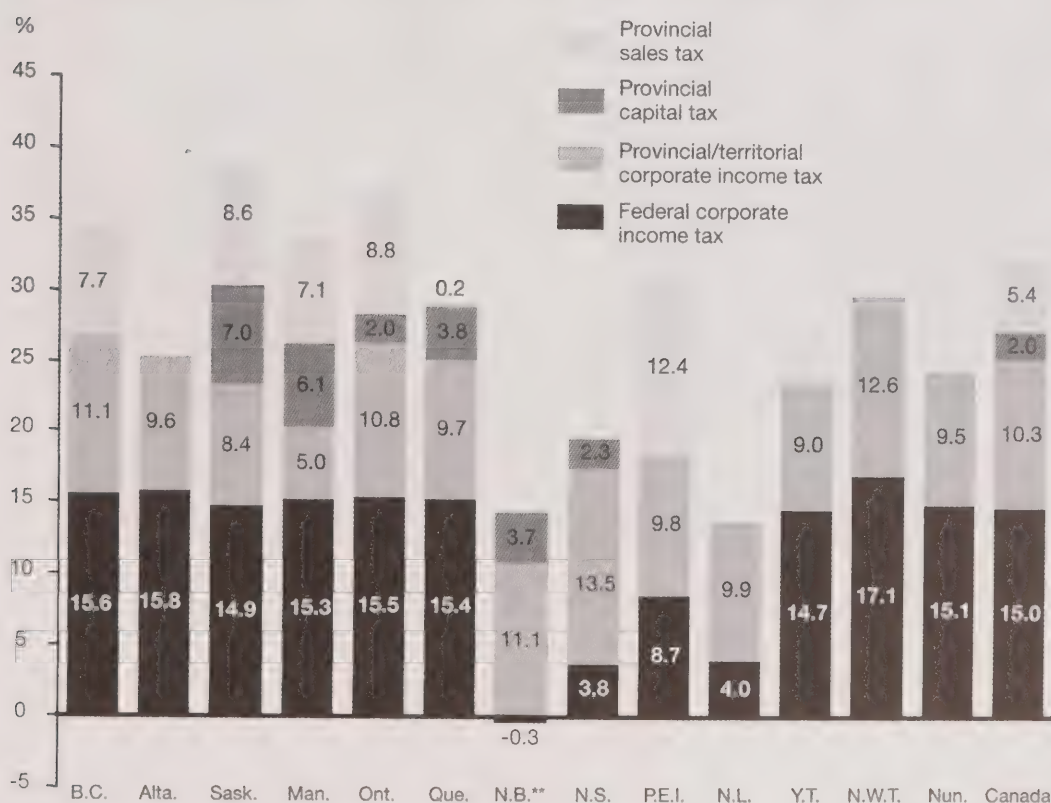
As a result, the METRs presented in this paper should be viewed as reasonable estimates within a range of possible values.

ESTIMATES FOR PROVINCES, TERRITORIES AND STATES

METRs are highly variable across jurisdictions in Canada, ranging from approximately 14% to almost 40% (Chart 9). Investment tax credits are important in the Atlantic provinces, reflecting the federal Atlantic investment tax credit (AITC) as well as an additional ITC provided by Prince Edward Island.²⁴ The federal corporate income tax METR is not the same in all jurisdictions, even excluding the AITC, due to differences in the composition of investment, while the variance in the provincial income tax METR reflects differences in tax rates. Capital taxes and sales taxes on capital inputs add considerably to variability across jurisdictions. Note that the METR in Ontario will decline by 2 percentage points in 2012 when the phased elimination of the provincial capital tax is completed.

Chart 9

Decomposition of Provincial and Territorial METRs* in 2010



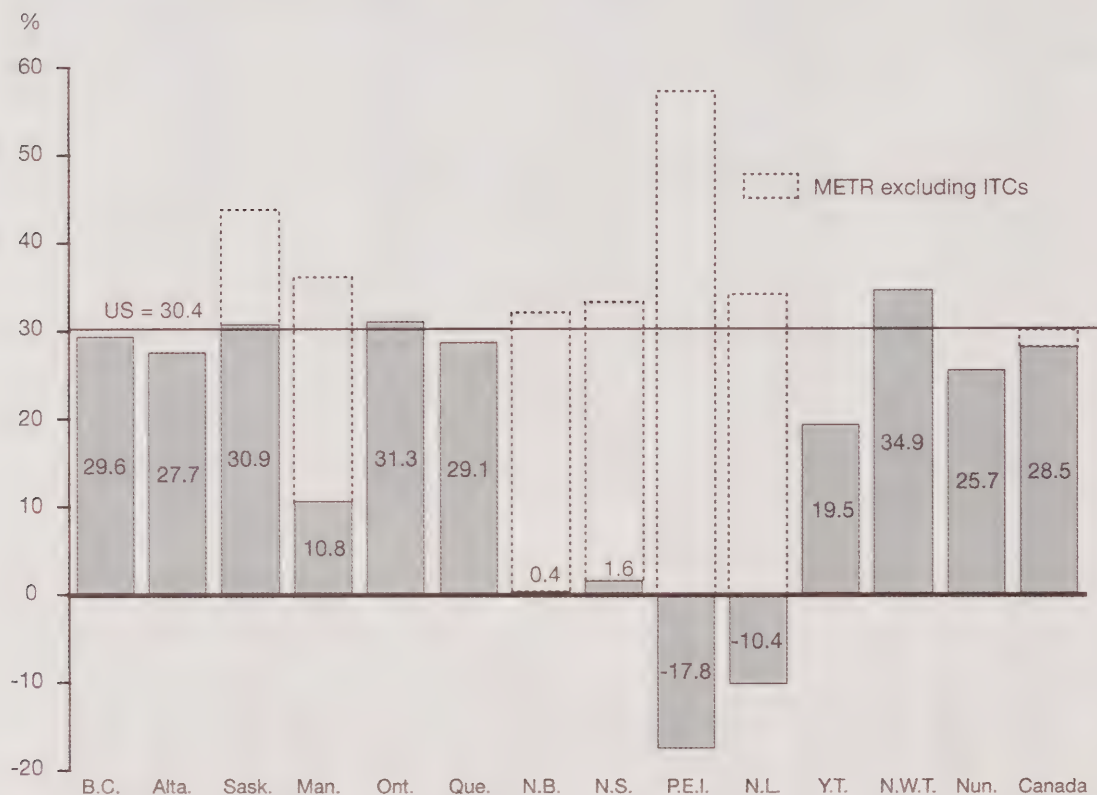
* Excluding resource industries, financial institutions and R&D assets.

** The federal corporate income tax METR is negative due to the Atlantic investment tax credit and a high share of eligible sectors in New Brunswick compared to other Atlantic provinces.

²⁴ ITCs have a large impact on METRs, even when set at an ostensibly low rate of 5% or 10%. The explanation is that the credit provides an upfront benefit based on the purchase price of a capital good, while tax liabilities are related to the profits generated by the asset, which generally amount to a small fraction of the purchase price.

The manufacturing METR in most jurisdictions is below the US average (Chart 10). Investment tax credits are generally restricted to manufacturing and natural resource industries, so they have a dramatic impact on tax competitiveness: the federal AITC reduces the manufacturing METR in Atlantic Canada by 30 percentage points on average while Manitoba's ITC trims the METR almost 25 percentage points.

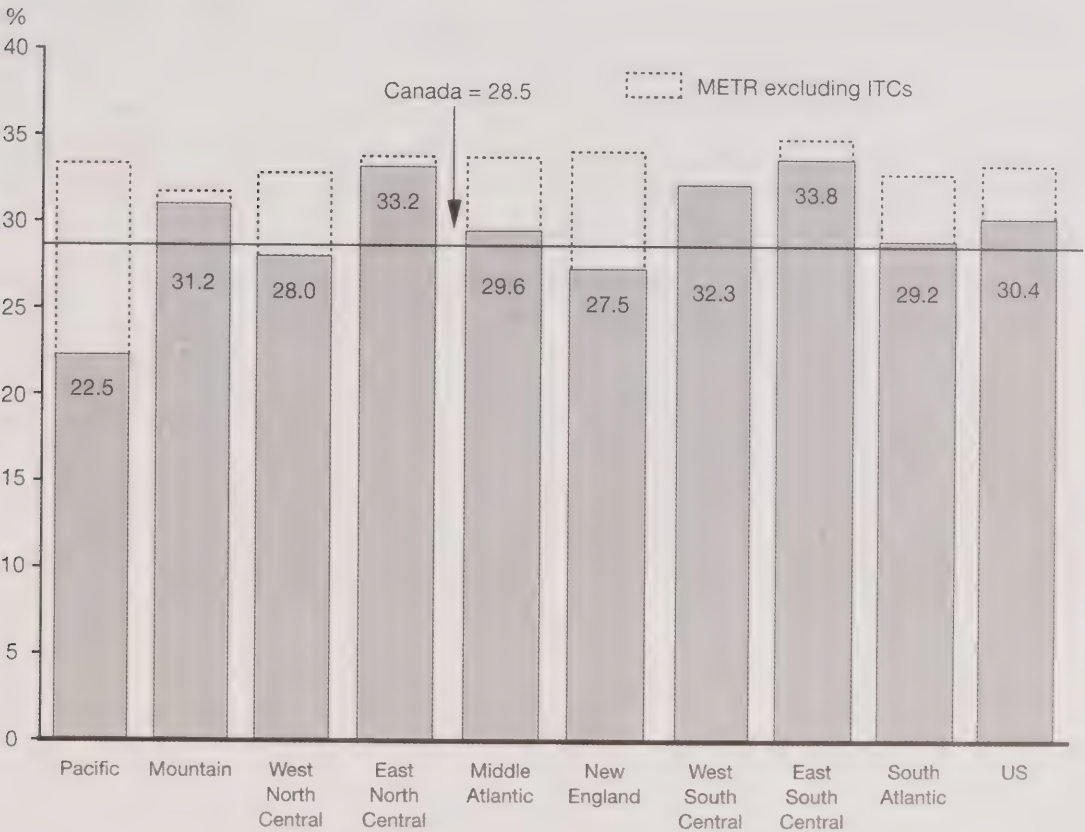
Chart 10
Canadian Manufacturing METRs in 2010
by Province and Territory*



* Excluding R&D assets.

There is also considerable variation in manufacturing METRs across US states. The variance primarily reflects the impact of investment tax credits, sales taxes and capital taxes, all of which are implemented at the state level. Chart 11 shows manufacturing METRs for nine US regions (see Annex C for state METRs presented by region). State ITCs have a substantial impact on the METRs in five regions, reducing the METR in these regions by approximately 6 percentage points on average.

Chart 11
US Manufacturing METRs by Region*



* Excluding R&D assets.

CONCLUSION

This paper reports estimates of METRs for all jurisdictions in Canada and the US. The key findings flowing from this analysis are:

- Policy initiatives undertaken in Canada since 2000, together with those proposed in Budget 2005, would have the effect of reducing the tax burden on new investment by about a quarter by 2010.
- Canada's average METR would be lower than in the US in 2010. The advantage would, however, be smaller than the difference in statutory income tax rates because of other elements of the tax system, notably capital taxes imposed by provincial governments, more generous investment tax credits and tax depreciation in the US, and the absence of LIFO inventory accounting in Canada.
- Competitiveness is a concern in selected jurisdictions, in part due to the widespread use of investment tax credits by US states as well as capital taxes and retail sales taxes that place a burden on capital goods in several provinces.
- Effective rates vary across industries and jurisdictions in both Canada and the US, which can affect the allocation of investment and hence economic efficiency.

These conclusions come with a number of important caveats. First, METRs apply to large taxable firms making an investment that is small relative to the ongoing operations of the firm. Second, the investment is assumed to earn just enough to pay suppliers of financial capital the minimum rate of return. Third, the Canada-US comparison is affected by changes in economic assumptions. Despite these limitations, METRs are a useful summary indicator of how the tax system affects the return on an investment and hence the decision to invest.

Provincial-Territorial and Federal Statutory Tax Rates (Projected for 2010, %)

Province/Territory	General Corporate Income Tax Rate	Manufacturing and Processing Income Tax Rate	Capital Tax Rate	R&D Tax Credit Rate (Current and Capital Expenditures) ²	Applicable Federal Atlantic Investment Tax Credit	Manufacturing and Processing Investment Tax Credit Rate	Retail Sales Tax on Capital Goods
Alberta	11.5	11.5	0.0	0.0	0.0	0.0	0.0
British Columbia	13.5	13.5	0.0	10.0	0.0	0.0	7.0
Manitoba	14.0	14.0	0.5	20.0	0.0	10.0	7.0
New Brunswick	13.0	13.0	0.3	15.0	10.0	0.0	0.0
Newfoundland and Labrador	14.0	5.0	0.0	15.0	10.0	0.0	0.0
Northwest Territories	14.0	14.0	0.0	0.0	0.0	0.0	0.0
Nova Scotia	16.0	16.0	0.2	15.0	10.0	0.0	0.0
Nunavut	12.0	12.0	0.0	0.0	0.0	0.0	0.0
Ontario	14.0	12.0	0.15	0.0	0.0	0.0	8.0
Prince Edward Island	16.0	16.0	0.0	35.0	10.0	10.0	10.0
Quebec	11.9	11.9	0.3	17.5 ³	0.0 ⁵	0.0	0.0 ⁶
Saskatchewan	17.0	10.0	0.6	15.0	0.0	7.0	7.0
Yukon	15.0	2.5	0.0	15.0	0.0	0.0	0.0
Provincial-Territorial Weighted Average	13.2	12.2	0.2	4.5	0.6	0.4	4.5⁷
Federal	19.0¹	19.0¹	0.0	20.0⁴	—	—	0.0

¹ As proposed in Budget 2005.² The federal and provincial governments, except Quebec, allow immediate deductibility of R&D capital expenditures.³ Only labour expenditures are eligible for the credit.⁴ The federal government credit is applied to eligible expenditures less government assistance, including provincial scientific research and experimental development tax credits. The effective credit equals 20%*(1-provincial rate).⁵ Excludes the impact of the Atlantic investment tax credit in the Gaspé region.⁶ The only exceptions to the zero-tax status are road vehicles less than 3,000 kg. used by business in Quebec.⁷ Exemptions apply in each province for specific capital goods. The weighted average effective tax rate is 2.0% for Canada and 3.5% for the five provinces imposing retail sales taxes.

ANNEX B

US State and Federal Statutory Tax Rates (Projected for 2010, %)

US States	General Corporate Income Tax Rate	Capital Tax Rate	R&D Tax Credit Rate			Investment Tax Credits Available ⁴	Retail Sales Tax on Capital Goods ⁵
			Current and Labor Expenditures ³	Capital Expenditures	Capital Expenditures		
Alabama	6.5	0.0	0.0	0.0	0.0	Yes	4.0
Alaska	9.4	0.0	0.0	0.0	0.0	No	0.0
Arizona	7.0	0.0	20.0	0.0	0.0	No	5.6
Arkansas	6.7	0.3	0.0	0.0	0.0	No	5.1
California	8.8	0.0	15.0	0.0	0.0	Yes	6.5
Colorado	4.6	0.0	0.0	0.0	0.0	No	2.9
Connecticut	7.5	0.0	20.0	0.0	0.0	Yes	6.0
Delaware	8.7	0.025 ²	10.0	0.0	0.0	No	0.0
District of Columbia	10.0	0.0	0.0	0.0	0.0	No	5.8
Florida	5.5	0.0	0.0	0.0	0.0	Yes	6.0
Georgia	6.0	0.0	10.0	0.0	0.0	Yes	4.0
Hawaii	6.4	0.0	20.0	0.0	0.0	No	4.0
Idaho	7.6	0.0	5.0	0.0	0.0	Yes	5.0
Illinois	7.3	0.15 ²	6.5	0.0	0.0	Yes	6.3
Indiana	8.5	0.0	10.0	0.0	0.0	No	6.0
Iowa	12.0	0.0	6.5	0.0	0.0	Yes	5.0
Kansas	4.1	0.0	6.5	0.0	0.0	Yes	5.3
Kentucky	8.3	0.21	0.0	5.0	5.0	No	6.0
Louisiana	8.0	0.3	8.0	0.0	0.0	No	4.0
Maine	8.9	0.0	5.0	0.0	0.0	No	5.0
Maryland	7.0	0.0	10.0	0.0	0.0	No	5.0
Massachusetts	9.5	0.26	10.0	0.0	0.0	Yes	5.0
Michigan	1.9	0.0	0.0	0.0	0.0	Yes	6.0
Minnesota	9.8	0.0	2.5	0.0	0.0	No	6.5
Mississippi	5.0	0.25	0.0	0.0	0.0	No	7.0
Missouri	6.3	0.03	0.0	0.0	0.0	No	4.2
Montana	6.8	0.0	5.0	0.0	0.0	No	0.0
Nebraska	7.8	0.0	0.0	0.0	0.0	No	5.5
Nevada	0.0	0.0	0.0	0.0	0.0	No	6.5
New Hampshire	8.5	0.0	0.0	0.0	0.0	No	0.0
New Jersey	9.0	0.0	10.0	0.0	0.0	Yes	6.0
New Mexico	7.6	0.0	0.0	0.0	0.0	No	5.0
New York	7.5	0.178 ²	0.0	0.0	0.0	Yes	4.3

ANNEX B

US State and Federal Statutory Tax Rates (Projected for 2010, %) (cont'd)

US States	General Corporate Income Tax Rate	Capital Tax Rate	R&D Tax Credit Rate			Investment Tax Credits Available ⁴	Retail Sales Tax on Capital Goods ⁵
			Current and Labor Expenditures ³	Capital Expenditures			
North Carolina	6.9	0.15	5.0	0.0		Yes	4.5
North Dakota	7.0	0.0	4.0	0.0		No	5.0
Ohio	8.5	0.0	7.0	0.0		No	5.0
Oklahoma	6.0	0.125	0.0	0.0		Yes	4.5
Oregon	6.6	0.0	0.0	0.0		No	0.0
Pennsylvania	10.0	0.0	10.0	0.0		No	6.0
Rhode Island	9.0	0.0	16.9	0.0		Yes	7.0
South Carolina	5.0	0.1	5.0	0.0		No	5.0
South Dakota	0.0	0.0	0.0	0.0		No	4.0
Tennessee	6.5	0.25	0.0	0.0		Yes	7.0
Texas	4.5	0.0	5.0	0.0		No	6.3
Utah	5.0	0.0	6.0	6.0		No	4.8
Vermont	9.8	0.0	10.0	0.0		Yes	6.0
Virginia	6.0	0.0	0.0	0.0		No	3.5
Washington	0.0	0.0	0.0	0.0		No	6.5
West Virginia	9.0	0.7 ²	10.0	0.0		Yes	6.0
Wisconsin	7.9	0.0	5.0	5.0		No	5.0
Wyoming	0.0	0.02	0.0	0.0		No	4.0
State Weighted Average	6.9	0.052	6.7	0.1		—	5.4
Federal¹	33.4	0.0	20.0	0.0		No	0.0
Combined Statutory Rate (Including Federal Deductibility of State Taxes)⁶	38.0						

¹ A rate reduction of 3.15% pts for manufacturing and processing industries from the general rate of 35% is effective 2009.

² Taxable capital is defined as total equity invested instead of total assets.

³ The federal and most state tax credits apply to scientific research and experimental development expenditures in excess of a firm-specific base amount.

⁴ Excluding within-state regional development investment tax credits.

⁵ Exemptions apply in each state for specific capital goods. The weighted average effective rate is 2.8%.

⁶ Federal corporate taxes are deductible in Alabama, Iowa, Louisiana, Missouri and North Dakota.

ANNEX C

METRs on Tangible Assets for the 50 US States and District of Columbia (Projected for 2010, %)

	Manufacturing	All Sectors		Manufacturing	All Sectors
East North Central			Pacific		
Illinois	33.0	36.8	Alaska	29.7	29.8
Indiana	33.6	37.2	California	19.3	33.3
Michigan	33.8	37.6	Hawaii	35.5	35.5
Ohio	32.9	35.9	Oregon	28.0	28.1
Wisconsin	32.5	35.5	Washington	29.4	33.7
East North Central	33.2	36.5	Pacific	22.5	32.7
East South Central			South Atlantic		
Alabama	29.5	31.8	Delaware	29.4	29.5
Kentucky	35.7	38.9	District of Columbia	40.1	39.9
Mississippi	35.2	39.1	Florida	38.1	37.9
Tennessee	34.4	38.4	Georgia	23.0	29.4
East South Central	33.8	36.9	Maryland	32.0	35.2
Middle Atlantic			North Carolina	25.2	31.7
New Jersey	30.5	36.2	South Carolina	32.1	34.1
New York	20.1	30.4	Virginia	30.4	31.9
Pennsylvania	34.4	37.9	West Virginia	29.7	38.3
Middle Atlantic	29.6	34.9	South Atlantic	29.2	33.0
Mountain			West North Central		
Arizona	32.5	35.9	Iowa	1.0	6.2
Colorado	29.1	31.2	Kansas	28.3	32.0
Idaho	27.0	30.9	Minnesota	34.4	38.1
Montana	28.1	28.2	Missouri	30.7	33.3
Nevada	36.8	36.8	Nebraska	38.7	38.5
New Mexico	37.8	37.7	North Dakota	30.2	33.0
Utah	30.8	33.9	South Dakota	32.4	32.5
Wyoming	27.7	30.7	West North Central	28.0	31.7
Mountain	31.2	33.4	West South Central		
New England			Arkansas	35.3	38.2
Connecticut	23.9	29.6	Louisiana	32.9	35.5
Maine	33.1	36.2	Oklahoma	31.9	33.7
Massachusetts	29.6	36.6	Texas	31.6	35.6
New Hampshire	29.1	29.2	West South Central	32.3	35.5
Rhode Island	10.2	31.2	US	30.4	34.5
Vermont	21.5	25.9			
New England	27.5	33.5			

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TAX EXPENDITURES AND EVALUATIONS

2006



CANADA'S NEW GOVERNMENT

Canada

TAX EXPENDITURES AND EVALUATIONS

2006



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Preface

Since 2000 the tax expenditure report has been separated into two documents. This document, *Tax Expenditures and Evaluations*, is published on an annual basis. It provides estimates and projections for broadly defined tax expenditures as well as evaluations and descriptive papers addressing specific tax measures. This year's edition includes two analytical papers:

- "Taxes on Business Investment: An International Comparison of Marginal Effective Tax Rates in the Manufacturing Sector"
- "Investing in Post-Secondary Education: The Impact of the Income Tax System"

The companion document, *Tax Expenditures: Notes to the Estimates/Projections*, was published in 2004. It is a reference document for readers who wish to know more about how the estimates and projections are calculated and who want descriptions of, or information on the objectives of, particular tax expenditures. New tax expenditures are described in the relevant section of this document.

Part 1

TAX EXPENDITURES: ESTIMATES AND PROJECTIONS



Introduction

The principal function of the tax system is to raise the revenues necessary to fund government expenditures that reflect society's priorities. The tax system can also be used directly to achieve public policy objectives through the application of special tax rates, exemptions, deductions, rebates, deferrals and credits that affect the level and distribution of tax. These measures are often described as "tax expenditures" because they reduce government revenue.

In order to define tax expenditures, it is necessary to establish a "benchmark" tax structure that applies the relevant tax rates to a broadly defined tax base—e.g. personal income, business income or consumption. Tax expenditures are then defined as deviations from this benchmark. Reasonable differences of opinion exist about what should be considered a normal part of the tax system and hence about what should be considered a tax expenditure. For example, a deduction for expenses incurred in earning income is generally considered as part of the benchmark and thus not as a tax expenditure. But in some cases the deduction may confer some personal benefit, making its classification ambiguous.

This report takes a broad approach and includes estimates and projections of the revenue loss associated with all but the most fundamental structural elements of the tax system, such as the progressive personal income tax rate structure. This includes not only measures that may reasonably be regarded as tax expenditures but also other measures that may be considered part of the benchmark tax system. The latter are listed separately under "memorandum items." For instance, the dividend tax credit is listed under this heading because its purpose is to reduce or eliminate the double taxation of income earned by corporations and distributed to individuals through dividends. Also included under this heading are measures for which there may be some debate over whether they should be considered tax expenditures, or where data limitations do not permit a separation of the tax expenditure and benchmark components of the measure. This approach provides information on a full range of measures.



Caveats

Care must be taken in interpreting the estimates and projections of tax expenditures in the tables for the following reasons.

- The estimates and projections are intended to indicate the potential revenue gain that would be realized by removing individual tax measures. They are developed assuming that the underlying tax base would not be affected by removal of the measure. However, this is an assumption that is unlikely to be true in practice as the behaviour of economic agents, overall economic activity and other government policies could change along with the specific tax provision.
- The cost of each tax measure is determined separately, assuming that all other tax provisions remain unchanged. Many of the tax expenditures do, however, interact with each other such that the impact of several tax provisions at once cannot generally be calculated by adding up the estimates and projections for each provision.
- The federal and provincial income tax systems interact with each other to various degrees. As a result, changes to tax expenditures in the federal system may have consequences for provincial tax revenues. In this publication, however, any such provincial effects are not taken into account—that is, the tax expenditure estimates and projections address strictly the federal tax system and federal tax revenue.
- In the case of the harmonized sales tax in effect in Nova Scotia, New Brunswick, and Newfoundland and Labrador, only the federal cost of the tax expenditures is reported.

The tax expenditure estimates and projections presented in this document are developed using the latest available taxation data. Revisions to the underlying data as well as improvements to the methodology can result in substantial changes to the value of a given tax expenditure in successive publications. In addition, estimates and projections for some tax measures, such as the half inclusion rate on capital gains, are particularly sensitive to economic parameters and hence may also differ significantly from one publication to the next.

What's New in the 2006 Report

A number of new tax measures have been introduced since last year's report and others have been modified. These are described below.

Personal Income Tax

Personal Income Tax Rates

The lowest personal income tax rate was reduced to 15 per cent from 16 per cent effective January 1, 2005. The rate is 15.5 per cent effective July 1, 2006. Accordingly, the full-year rate is 15 per cent for 2005, 15.25 per cent for 2006, and 15.5 per cent for the 2007 and subsequent taxation years.

For the 2005 taxation year, the 15-per-cent rate applies to taxable incomes of up to \$35,595. For the 2006 taxation year, the 15.25-per-cent rate applies to taxable incomes of up to \$36,378. The upper limit for the application of the 15.5-per-cent rate is indexed for taxation years after 2006. These rates will also be generally used to calculate non-refundable tax credits and the alternative minimum tax for the 2005 and subsequent taxation years.

Basic Personal Amount

The basic personal amount was increased by \$500 to \$8,648 for the 2005 taxation year. For the first half of 2006, it was increased by indexation plus a further \$200, for a total of \$9,039. The basic personal amount was reduced by \$400 to \$8,639 on July 1, 2006. For the purpose of calculating personal income taxes for the 2006 taxation year, these two half-year amounts are applied as an annual average of \$8,839. For 2007, the \$8,639 amount is increased by indexation plus an additional \$100. For 2008, it is increased by indexation plus an additional \$200.

Personal amounts in respect of a spouse or common-law partner or wholly dependent relative were also adjusted. Specifically, for the 2005 taxation year, these amounts were increased by \$425 to \$7,344. For the first half of 2006, they were increased by indexation plus a further \$170, for a total of \$7,675. The amount was reduced by \$340 to \$7,335 on July 1, 2006. For the purpose of calculating personal income taxes for the 2006 taxation year, these two half-year amounts are applied as an annual average of \$7,505. For 2007, the \$7,335 amount is increased by indexation plus an additional \$85. For 2008, it is increased by indexation plus an additional \$170.

Pension Income Credit

Budget 2006 provided greater tax relief to pensioners by increasing to \$2,000 from \$1,000 the maximum amount of eligible pension income that can be used in calculating the pension income credit. This measure applies to the 2006 and subsequent taxation years.



Pension Income Splitting

Objective: This major positive change in tax policy for pensioners will enhance the incentives to save and invest for family retirement security.

The October 31, 2006, Tax Fairness Plan proposes to allow pension income splitting commencing in 2007. The measure will allow any Canadian resident who receives qualifying pension income to allocate to their resident spouse or common-law partner up to one-half of that income.

Age Credit

The Tax Fairness Plan increased the age credit amount, a credit that provides tax relief to low- and middle-income seniors, by \$1,000 from \$4,066 to \$5,066. This increase is effective for the 2006 and subsequent taxation years. The credit amount will continue to be indexed thereafter.

Canada Child Tax Benefit and Child Disability Benefit

The Canada Child Tax Benefit (CCTB), which includes the CCTB base benefit and the National Child Benefit supplement, as well as the Child Disability Benefit (which was shown separately), are no longer included in this publication, reflecting changes to the presentation of government financial information. Acting on a recommendation by the Auditor General of Canada, the Government now presents its financial statements on a gross basis to more accurately reflect the nature and size of its revenues and expenses. Previously, the CCTB and its components were netted against personal income tax revenues, and were considered a tax expenditure. The CCTB and its components are now reported as government expenses.

Refundable Medical Expense Supplement

Budget 2006 increased the maximum amount of the refundable medical expense supplement to \$1,000 from \$767 per year, effective 2006.

Textbook Tax Credit

Objective: To encourage Canadians to pursue post-secondary education by providing better tax recognition for the cost of textbooks.

This new measure provides \$65 per month for full-time students, and \$20 per month for part-time students, in textbook tax credit amounts. Students receive a credit on these amounts, in recognition of the costs of post-secondary textbooks.

Full Exemption for Post-Secondary Scholarships and Bursaries

Budget 2006 introduced a full exemption for post-secondary scholarship, fellowship and bursary income. The conditions that apply to the full exemption are the same as those that applied to the \$3,000 exemption: the scholarship, fellowship or bursary must be received by a student in connection with a student's enrolment in a program for which the student can claim the education tax credit.

Canada Employment Credit

Objective: This new tax credit recognizes work-related expenses incurred by Canadians for items such as home computers, uniforms and supplies.

This new credit, which took effect July 1, 2006, provides tax relief on the lesser of \$500 and the individual's employment income for the year. Because this measure took effect on July 1, 2006, the maximum amount on which the credit is calculated for the 2006 taxation year is \$250. For the 2007 and subsequent taxation years, the maximum amount on which the credit is calculated is increased to \$1,000. The tax credit for a taxation year is calculated by reference to the lowest personal income tax rate for the taxation year (i.e. 15.25 per cent for 2006 and 15.5 per cent for the 2007 and subsequent taxation years). The amount on which the credit is based is indexed after 2007.

Tradespeople's Tool Expenses

Objective: To provide tax recognition for the cost of tools that tradespeople must provide as a condition of employment and to encourage apprenticeships.

Budget 2006 allows the total cost of eligible new tools acquired by an employed tradesperson in a taxation year, in excess of \$1,000 (indexed after 2007), to be deductible up to a maximum of \$500 for that year. For the cost of tools to qualify for the deduction, the employer will have to certify that the employee is required to acquire those tools as a condition of, and for use in, the employment. This measure applies to new tools acquired on or after May 2, 2006.

Children's Fitness Tax Credit

Objective: To help parents offset some of the costs associated with registration fees for children's sports, thereby promoting physical fitness and healthy living among children.

Budget 2006 will allow parents to claim a non-refundable tax credit in respect of up to \$500 in eligible fees for the enrolment of a child under the age of 16 in an eligible program of physical activity. The measure will apply to the 2007 and subsequent taxation years. The credit will be calculated by reference to the lowest personal income tax rate for the taxation year and can be claimed by either parent for eligible fees incurred during the calendar year.



Mineral Exploration Tax Credit for Flow-Through Share Investors

In October 2000, a 15-per-cent tax credit was introduced to help moderate the impact of a global downturn in mineral exploration on mining communities by promoting exploration. This tax incentive, available to individuals investing in flow-through shares used to finance exploration, expired on December 31, 2005, after two extensions.

Budget 2006 reintroduced the credit for the period from May 2, 2006 until March 31, 2007. The one-year “look-back” rule will allow funds raised with the benefit of the credit in 2007, for example, to be spent on eligible exploration activity up until the end of 2008.

\$500,000 Lifetime Capital Gains Exemption for Qualified Fishing Property

Budget 2006 extended the \$500,000 lifetime capital gains exemption available on the transfer of farm property and small business shares to qualified fishers. This measure applies to the disposition of fishing property on or after May 2, 2006.

Eliminating Double Taxation of Large Corporation Dividends

Budget 2006 eliminated the double taxation of dividends from large corporations at the federal level by introducing an enhanced gross-up and dividend tax credit (DTC) for dividends paid after 2005 by large corporations. Specifically, starting in 2006, shareholders will include 145 per cent of the eligible dividend amount in income (that is, a 45-per-cent gross-up), and the federal DTC with respect to eligible dividends will be approximately 19 per cent of that grossed-up amount.

Tax Credit for Public Transit Passes

Objective: The new transit tax credit will make transit more affordable, reduce traffic congestion and lower greenhouse gas emissions.

Budget 2006 allows individuals to claim a non-refundable tax credit for the cost of monthly public transit passes or those passes of a longer duration effective July 1, 2006. Specifically, it will be claimable by the individual, or the individual’s spouse or common-law partner, in respect of eligible transit costs of the individual, the individual’s spouse or common-law partner, and the individual’s dependent children that are under 19 years of age.

Corporate Income Tax

Accelerated Elimination of the Federal Capital Tax

The federal capital tax was eliminated as of January 1, 2006, two years earlier than originally scheduled. The tax was levied at a rate of 0.125 per cent in 2005 on taxable capital in excess of \$50 million.

Apprenticeship Job Creation Tax Credit

Objective: To encourage employers to hire new apprentices and to support apprentices in their training, the Government has created a new Apprenticeship Job Creation Tax Credit of up to \$2,000 per apprentice.

In order to encourage employers to hire new apprentices, Budget 2006 introduced a new Apprenticeship Job Creation Tax Credit, effective May 2, 2006. Eligible employers will receive a tax credit equal to 10 per cent of the wages paid to qualifying apprentices in the first two years of their contract, to a maximum credit of \$2,000 per apprentice per year.

Elimination of the Federal Corporate Surtax

The federal corporate surtax will be eliminated for all corporations in 2008. Its elimination is equivalent to a 1.12-percentage-point reduction in corporate income tax rates.

The corporate surtax applies to all corporations and is calculated at a rate of 4 per cent of federal corporate income tax payable after the 10-per-cent abatement for income earned in a province, but before credits such as the small business deduction and credits for foreign taxes paid.

Increase of the Small Business Deduction

The small business deduction currently reduces the federal corporate income tax rate applied to the first \$300,000 of qualifying active business income of a Canadian-controlled private corporation to 12 per cent.

The small business tax rate will be reduced by 1 percentage point by 2009. The tax rate will be reduced to 11.5 per cent in 2008 and then to 11 per cent in 2009 and thereafter. In addition, the annual amount of active business income eligible for the reduced tax rate (generally referred to as the small business limit) will be increased to \$400,000 as of 2007.

Reduction of the General Corporate Income Tax Rate

The general corporate income tax rate will be reduced to 19 per cent from 21 per cent by 2010. The rate will be reduced to 20.5 per cent in 2008, to 20 per cent in 2009, and to 19 per cent in 2010 and thereafter.

Goods and Services Tax

Reduction in the Goods and Services Tax Rate

As announced in the 2006 budget, the goods and services tax rate was reduced by 1 percentage point as of July 1, 2006. The tax expenditure projections reflect this reduction.

Elimination of the Visitor Rebate Program

The Visitor Rebate Program is proposed to be eliminated effective April 1, 2007, as part of the package of specific spending restraint measures announced by the Government on September 25, 2006.



The Tax Expenditures

Tables 1 to 3 provide tax expenditure values for personal income tax, corporate income tax and the goods and services tax (GST) for the years 2001 to 2008.

Estimates and projections are developed using the methodology set out in Chapter 1 of *Tax Expenditures: Notes to the Estimates/Projections*.¹ The economic variables used to develop the projections are based on the average of private sector forecasts presented in the May 2006 budget.

The tax expenditures are grouped according to functional categories. This grouping is provided solely for presentational purposes and is not intended to reflect underlying policy considerations.

All estimates and projections are reported in millions of dollars. The letter “S” indicates that the cost is less than \$2.5 million, “n.a.” signifies that data is not available to support a meaningful estimate/projection, and a dash means that the tax expenditure is not in effect. The inclusion in the report of items for which estimates and projections are not available is warranted given that the report is designed to provide information on measures included in the tax system even if it is not always possible to provide their revenue impacts. Work is continuing to obtain quantitative estimates and projections where possible.

¹ Available on the Department of Finance website at www.fin.gc.ca.



Table 1
Personal Income Tax Expenditures*

	Estimates			Projections				
	2001	2002	2003	2004	2005	2006	2007	2008
	(\$ millions)							
Charities, Gifts and Contributions								
Charitable donations credit	1,490	1,580	1,825	1,965	1,925	1,990	2,025	2,055
Reduced inclusion rate for capital gains arising from donations of publicly listed securities and ecologically sensitive land ¹	6	3	6	8	10	26	29	29
Non-taxation of capital gains on gifts of cultural property ²	6	3	14	7	3	4	4	4
Non-taxation of gifts and bequests	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Political contribution tax credit ³	8	9	11	19	16	14	10	11
Culture								
Assistance for artists	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deduction for artists and musicians	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Education								
Adult basic education—tax deduction for tuition assistance	—	10	5	5	5	5	5	5
Apprentice vehicle mechanics' tools deduction	—	10	10	10	10	10	10	10
Education tax credit ⁴	260	250	235	235	215	220	220	220
Tuition tax credit	275	275	270	275	260	260	265	270
Textbook tax credit ⁵	—	—	—	—	—	80	82	83
Education and tuition tax credits carried forward from prior years ⁶	170	245	290	290	270	265	285	310
Transfer of education and tuition tax credits ⁷	390	420	440	455	435	485	500	505
Partial exemption of scholarship, fellowship and bursary income ⁸	14	13	11	11	10	38	38	39
Registered education savings plans ^{9,10}	96	110	130	150	145	175	215	285
Student loan interest tax credit	66	59	63	65	62	65	67	69
Employment								
Canada Employment Credit	—	—	—	—	—	439	1,805	1,881
Deduction for income earned by military and police deployed to high-risk international missions	—	—	—	30	30	30	30	30
Deduction of home relocation loans	S	S	S	S	S	S	S	S
Deferral of salary through leave of absence/sabbatical plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Employee benefit plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Employee stock options ¹¹	650	415	480	730	540	565	595	625

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, published in 2004 and available on the Department of Finance website (www.fin.gc.ca), for a discussion of the reasons for this.



Table 1

Personal Income Tax Expenditures (cont'd)

	Estimates			Projections				
	2001	2002	2003	2004	2005	2006	2007	2008
	(\$ millions)							
Non-taxation of certain non-monetary employment benefits	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of strike pay	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Northern residents deductions	125	130	135	135	135	135	135	140
Overseas employment credit	57	62	58	59	60	60	61	62
Tax-free amount for emergency service volunteers	14	14	14	14	14	14	14	14
Tradespeople's tool expenses	—	—	—	—	—	15	15	15
Family								
Adoption expense tax credit ¹²	—	—	—	—	5	5	5	5
Caregiver credit	57	65	73	80	77	81	85	85
Deferral of capital gains through transfers to a spouse, spousal trust or family trust	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Infirm dependant credit	6	6	6	6	6	6	6	7
Spouse or common-law partner credit ^{13,14}	1,165	1,180	1,190	1,245	1,290	1,325	1,330	1,415
Eligible dependant credit ^{13,14}	610	630	660	680	680	710	730	755
Farming and Fishing								
\$500,000 lifetime capital gains exemption for farm/fishing property ¹⁵	215	255	240	240	245	310	315	320
Cash-basis accounting	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of capital gains through intergenerational rollovers of family farms and commercial woodlots	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of income from destruction of livestock ¹⁶	3	S	S	9	-9	S	S	S
Deferral of income from sale of livestock during drought years	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of income from grain sold through cash purchase tickets ¹⁷	-26	21	S	S	25	7	8	9
Deferral through 10-year capital gain reserve	S	S	S	S	S	S	S	S
Exemption from making quarterly tax instalments	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Flexibility in inventory accounting	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tax treatment of the Net Income Stabilization Account¹⁸								
Deferral of tax on government contributions	66	170	45	S	S	S	S	S
Deferral of tax on bonus and interest income	31	26	22	21	7	S	S	S
Taxable withdrawals	-76	-105	-98	-180	-155	-8	S	S



Table 1

Personal Income Tax Expenditures (cont'd)

	Estimates			Projections				
	2001	2002	2003	2004	2005	2006	2007	2008
(\$ millions)								
Federal-Provincial Financing Arrangements								
Logging tax credit	S	S	S	S	S	S	S	S
Quebec abatement	2,965	3,050	3,215	3,350	3,565	3,465	3,715	3,905
Transfer of income tax points to provinces	13,555	13,585	14,235	14,930	16,010	15,565	16,680	17,530
General Business and Investment								
\$200 capital gains exemption on foreign exchange transactions	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
\$1,000 capital gains exemption on personal-use property	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deduction of accelerated capital cost allowance ¹⁹	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral through use of billed-basis accounting by professionals	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral through capital gains rollovers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral through five-year capital gain reserve	20	31	16	16	16	17	17	17
Investment tax credits	33	36	43	43	44	45	45	46
Mineral exploration tax credit for flow-through share investors ²⁰	12	25	45	49	68	56	-8	-4
Partial inclusion of capital gains ²¹	1,985	1,665	2,040	2,795	2,935	3,080	3,235	3,395
Taxation of capital gains upon realization ²²	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Small Business								
\$500,000 lifetime capital gains exemption for small business shares	345	305	305	305	310	315	325	330
Deduction of allowable business investment losses	41	43	29	33	38	40	40	40
Deferral through 10-year capital gain reserve	S	S	S	S	S	S	S	S
Labour-sponsored venture capital corporations credit ²³	215	180	160	150	150	150	150	150
Rollovers of investments in small businesses	6	3	4	10	10	10	10	10
Health								
Children's fitness tax credit	—	—	—	—	—	—	160	165
Disability tax credit ²⁴	330	350	365	380	425	440	465	475
Medical expense tax credit ²⁵	570	635	700	765	760	825	925	995
Non-taxation of business-paid health and dental benefits	1,710	1,875	2,010	2,165	2,255	2,430	2,595	2,760
Refundable medical expense supplement ²⁶	55	64	68	73	87	100	105	110



Table 1

Personal Income Tax Expenditures (cont'd)

	Estimates			Projections				
	2001	2002	2003	2004	2005	2006	2007	2008
	(\$ millions)							
Income Maintenance and Retirement								
Age credit ²⁷	1,320	1,355	1,440	1,505	1,400	1,760	1,885	1,935
Deferred profit-sharing plans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of certain amounts received as damages in respect of personal injury or death	15	15	17	18	17	18	19	20
Non-taxation of Guaranteed Income Supplement and Allowance benefits ²⁸	265	265	295	290	240	245	270	270
Non-taxation of investment income on life insurance policies ²⁹	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of RCMP pensions/compensation in respect of injury, disability or death	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of social assistance benefits ³⁰	245	225	220	205	155	150	145	130
Non-taxation of up to \$10,000 of death benefits	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of veterans' allowances, income support benefits, civilian war pensions and allowances, and other service pensions (including those from Allied countries) ³¹	5	4	3	3	S	S	S	S
Non-taxation of veterans' disability pensions and support for dependants ³²	135	140	145	150	140	150	150	145
Non-taxation of veterans' disability award ³³	—	—	—	—	—	—	14	18
Non-taxation of workers' compensation benefits	650	700	630	655	650	695	750	790
Pension income credit ³⁴	405	415	430	435	405	800	840	855
Pension income splitting ³⁵	—	—	—	—	—	—	650	685
Registered pension plans ³⁶								
Deduction for contributions	4,575	5,325	6,615	8,270	8,395	8,700	9,015	9,325
Non-taxation of investment income	2,785	335	11,465	9,630	10,215	10,670	11,405	12,165
Taxation of withdrawals	-6,415	-6,670	-6,905	-7,140	-7,235	-7,560	-8,055	-8,495
Net tax expenditure	945	-1,010	11,175	10,760	11,375	11,810	12,365	12,995
Registered retirement savings plans ³⁶								
Deduction for contributions	6,225	5,915	6,000	6,655	7,030	7,520	8,030	8,555
Non-taxation of investment income ³⁷	1,280	17	6,300	4,995	5,360	5,645	6,115	6,610
Taxation of withdrawals	-3,465	-3,510	-3,670	-4,050	-4,285	-4,720	-5,275	-5,855
Net tax expenditure	4,040	2,425	8,630	7,600	8,110	8,445	8,870	9,310
Supplementary information:								
Present value of tax assistance for retirement savings plans ^{38,39}	5,670	5,850	6,820	8,040	8,490	8,990	9,380	9,850
Saskatchewan Pension Plan	S	S	S	S	S	S	S	S
Treatment of alimony and maintenance payments	115	115	115	105	105	105	105	105

Table 1

Personal Income Tax Expenditures (*cont'd*)

	Estimates			Projections				
	2001	2002	2003	2004	2005	2006	2007	2008
	(\$ millions)							
Other Items								
Deduction related to vows of perpetual poverty	S	S	S	S	S	S	S	S
Deduction for clergy residence	67	74	70	71	71	72	74	75
Non-taxation of capital gains on principal residences ⁴⁰								
Partial inclusion rate	885	1,405	1,830	2,500	3,260	3,325	3,390	3,460
Full inclusion rate	1,770	2,810	3,655	5,000	6,525	6,655	6,780	6,920
Non-taxation of income from the Office of the Governor General	S	S	S	S	S	S	S	S
Non-taxation of income of Indians on reserves	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Special tax computation for certain retroactive lump-sum payments	S	S	S	S	S	S	S	S
Tax credit for public transit passes	—	—	—	—	—	98	212	228
Memorandum Items								
<i>Avoidance of Double taxation</i>								
Dividend gross-up and credit ⁴¹	1,215	1,260	1,330	1,535	1,680	2,065	2,165	2,260
Foreign tax credit	635	665	580	590	595	605	615	620
Non-taxation of capital dividends	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<i>Recognition of Expenses Incurred to Earn Income</i>								
Child care expense deduction ⁴²	530	535	535	535	500	605	695	700
Deduction of carrying charges incurred to earn income	825	730	725	730	745	815	950	1,080
Deduction of union and professional dues	550	575	600	605	625	650	670	690
Disability supports deduction (attendant care deduction) ⁴³	S	S	S	5	5	8	10	12
Moving expense deduction	81	88	82	83	84	87	89	91
<i>Loss Offset Provisions</i>								
Capital loss carry-overs ⁴⁴	86	91	165	255	200	150	150	150
Farm and fishing loss carry-overs	16	15	10	9	9	10	10	10
Non-capital loss carry-overs	78	82	62	63	62	64	66	68
<i>Social and Employment Insurance Programs</i>								
Canada Pension Plan and Quebec Pension Plan ⁴⁵								
Employee-paid contribution credit	1,980	2,245	2,455	2,545	2,455	2,615	2,750	2,840
Non-taxation of employer-paid premiums ⁴⁶	2,975	3,400	3,730	3,795	3,875	4,085	4,265	4,420
Employment insurance								
Employment insurance contribution credit	1,085	1,075	1,050	1,010	950	945	980	1,000
Non-taxation of employer-paid premiums	2,160	2,140	2,085	1,975	1,960	1,935	1,985	2,025



Table 1

Personal Income Tax Expenditures (cont'd)

	Estimates			Projections				
	2001	2002	2003	2004	2005	2006	2007	2008
	(\$ millions)							
<i>Other</i>								
Basic personal amount ¹⁴	20,475	21,105	21,705	22,665	23,010	24,095	24,970	26,285
Deduction of farm losses for part-time farmers	60	61	61	58	60	63	63	63
Deduction of other employment expenses	735	775	825	835	860	890	915	945
Deduction of resource-related expenditures	155	175	270	365	480	515	500	495
Reclassification of flow-through shares ⁴⁷	33	31	35	54	77	84	80	78
Non-taxation of lottery and gambling winnings ⁴⁸	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of allowances for diplomats, military and other government employees posted abroad	9	10	10	9	9	9	9	9
Partial deduction of meals and entertainment expenses	85	72	76	75	75	77	78	79

Notes:

- ¹ The increase in the tax expenditure in 2006 and later years reflects the reduction in the capital gains inclusion rate on qualifying donations from one-half to zero in 2006. The total tax expenditure cost of this measure has two components: the revenue forgone as a result of the reduced inclusion rate (which is shown in the main table), and the increased cost of the charitable donations credit from any increase in donations that results from the measure. If all of the donations of publicly listed securities and ecologically sensitive land would have been made in the absence of this measure, then (as shown in the main table) the total cost ranges from \$3 million to \$29 million between 2001 and 2008. If, on the other hand, all donations of publicly listed securities and ecologically sensitive land came about as a result of the reduced inclusion rate on capital gains, and if in the absence of the measure the shares and land would have been sold instead of donated, then the cost of the measure ranges from \$31 million to \$125 million between 2001 and 2008, as shown below (in millions of dollars):

2001	2002	2003	2004	2005	2006	2007	2008
45	31	46	68	74	123	125	125

The true costs fall somewhere between the lower and upper bounds set by the ranges indicated.

- ² The total tax expenditure cost has two components: the revenue forgone as a result of the reduced inclusion rate (which is shown in the main table), and the increased cost of the charitable donations credit from any increase in donations that results from the measure. If all of the donations of cultural property would have been made in the absence of this measure, then (as shown in the main table) the total cost ranges from \$3 million to \$14 million between 2001 and 2008. If, on the other hand, all donations of cultural property came about as a result of this measure, and if the property would otherwise have been sold instead of donated, then the cost of the measure ranges from \$18 million to \$73 million over the period 2001 to 2008, as shown below (in millions of dollars):

2001	2002	2003	2004	2005	2006	2007	2008
31	18	73	35	17	20	21	21

The true costs fall somewhere between the lower and upper bounds set by the ranges indicated.

- ³ The projected increase in the tax expenditure for 2004 reflects both the impact of the 38th general election and the onset of two additional factors. First, the three political contribution tax credit thresholds were increased by \$200 each for 2004 and subsequent years. Second, An Act to amend the Canada Elections Act and the Income Tax Act, which received Royal Assent on May 14, 2004, enables additional political parties to become registered and eligible for the tax credit. The continuing high levels for the tax expenditure in 2005 and 2006 reflect the fact that contributions in respect of the 39th general election were spread over the two calendar years.



- ⁴ The tax expenditure amount is the credit amount earned and claimed in the year. The 2001 budget introduced a measure extending the education tax credit, beginning 2002, to people who receive taxable assistance for post-secondary education under certain government programs. Effective taxation year 2004, Budget 2004 extended the education tax credit to students who pursue post-secondary education related to their current employment, provided that their employer does not reimburse the cost of education in whole or in part.
- ⁵ This new measure provides \$65 per month for full-time students, and \$20 per month for part-time students, in textbook tax credit amounts. Students receive a credit on these amounts in recognition of the costs of post-secondary textbooks.
- ⁶ For a given year, the tax expenditure represents the value of education and tuition tax credits earned in past years, and used in that year. The tax expenditure does not include the pool of unused education and tuition tax credits that have been accumulated but will be deferred for use in future years. For example, in taxation year 2006 it is projected that taxpayers will defer \$40 million of education and tuition tax credits accumulated in past years, for use in 2007 and future tax years. In addition, the tax expenditure for the carry-forward for 2007 and beyond increases substantially due to the impact of the textbook tax credit and the full exemption of scholarship and bursary income, which were introduced in Budget 2006.
- ⁷ The tax expenditure for the transfer of education and tuition tax credits for 2006 and beyond increases substantially due to the impact of the textbook tax credit and the full exemption of scholarship and bursary income, which were introduced in Budget 2006.
- ⁸ The tax expenditure equals the tax revenue forgone from exempting scholarship, fellowship and bursary income from tax. Budget 2006 introduced a measure that makes all amounts received for post-secondary scholarships, fellowships and bursaries exempt from tax, where these amounts are received in connection with enrolment in a program for which the student can claim the education tax credit. Previously, the first \$3,000 of these amounts were exempt from income tax. All other scholarships and bursaries receive a tax exemption on the first \$500. In addition, a change in methodology has resulted in revised figures for tax years 2001 to 2005.
- ⁹ The tax expenditure equals the tax revenue forgone on the tax-sheltered income earned on registered education savings plan (RESP) assets, minus the revenue from taxing withdrawals of income (as an education assistance payment or accumulated income payment) from RESPs. The costs have changed significantly due to revised administrative data from Human Resources and Social Development Canada on education assistance payments received.
- ¹⁰ The projections include the impact of the Canada Learning Bond introduced in the 2004 budget.
- ¹¹ Poor market conditions led to decreased demand for stock options in 2002 and to a lesser extent 2003. Preliminary data indicates that the improved market conditions in 2004 resulted in increased use of stock option plans for that year. Projections for 2004 and subsequent years reflect an assumption of reduced market volatility and reduced take-up due to changes to the accounting treatment of employee stock options.
- ¹² This measure was introduced in the 2005 budget.
- ¹³ The spouse or common-law partner credit was previously known as the spousal credit. The eligible dependant credit was previously known as the equivalent-to-spouse credit.
- ¹⁴ Budget 2005 increased the basic personal amount by \$100 in both 2006 and 2007, and correspondingly increased the amount for a dependent spouse or common-law partner and an eligible dependant.
- ¹⁵ Budget 2006 extended the lifetime capital gains exemption available on the disposition of farm property and small business shares to qualified fishers, effective May 2, 2006. Projections have been revised to reflect this change.
- ¹⁶ The projected tax expenditure for 2004 is higher than in other years due to the effects of the outbreak of avian flu in British Columbia. Because this provision is a deferral measure, the deferred income from 2004 will be reported in 2005, resulting in a negative tax expenditure that year.
- ¹⁷ Estimates and projections are based on Statistics Canada data available up to 2005, which includes cash purchase tickets for wheat, barley, oats, canola, flax and rye. Projections after 2005 are calculated using a historical average growth rate.
- ¹⁸ The data for the Net Income Stabilization Account (NISA) program is observed up to 2004. Since the Canadian Agricultural Income Stabilization (CAIS) program has replaced NISA, tax expenditure projections reflect wind-down provisions that require that amounts in NISA accounts be withdrawn by March 31, 2009. Projections also reflect recent data from Statistics Canada, which indicates that withdrawals from the government portion of NISA accounts reached record levels in 2004. It should also be noted that CAIS does not result in a tax expenditure.
- ¹⁹ Data for unincorporated businesses is not available to estimate this tax expenditure with precision.
- ²⁰ The projections have been revised to reflect recent data and the reintroduction of the credit for the period from May 2, 2006 to March 31, 2007. The negative figures for 2007 and 2008 reflect the inclusion in income for those years of an amount equal to the credit claimed in the previous year (e.g. credit claimed in 2006 included in 2007 income). A deduction for the full amount of the eligible exploration expenditure is allowed for the year for which the credit is claimed. An amount equal to the credit is required to be included in income the following year, however, so as to reverse the deduction in respect of the portion of the expenditure that was effectively paid for by the credit.
- ²¹ The estimates and projections for this tax expenditure can vary significantly from year to year, primarily due to unanticipated year-to-year fluctuations in realized capital gains.
- ²² No data is available, as it is difficult to estimate the value of unsold assets.
- ²³ The projections of this tax expenditure for 2004 and 2005 are based on preliminary information showing reduced sales of shares of labour-sponsored venture capital corporations for those years. Projections assume sales remain constant after 2005.
- ²⁴ The 2005 budget extended eligibility for the disability tax credit (DTC) to individuals who face multiple restrictions that together have a substantial impact on their everyday lives, and amended the DTC to ensure that more individuals requiring extensive life-sustaining therapy on an ongoing basis are eligible.
- ²⁵ The increase in the projected tax expenditure reflects anticipated growth in medical expense claims as well as enhancements to the credit announced in the 2003, 2004 and 2005 budgets.



- ²⁶ The increase in the projected tax expenditure reflects anticipated growth in medical expense claims as well as enhancements announced in the 2005 and 2006 budgets. Specifically, the 2005 budget increased the maximum amount of the supplement from \$571 to \$750 per year, effective 2005, and the 2006 budget subsequently increased the maximum amount from \$767 to \$1,000, effective 2006.
- ²⁷ The Tax Fairness Plan increased the age credit amount, a credit that provides tax relief to low- and middle-income seniors, by \$1,000 from \$4,066 to \$5,066. This increase is effective for the 2006 and subsequent taxation years.
- ²⁸ The Guaranteed Income Supplement (GIS) and Allowance benefits are indexed to Consumer Price Index inflation. However, in both its frequency of application and in the months covered, the GIS indexation factor differs from that used for most of the parameters in the personal income tax system. Differences between the indexation factors cause the tax expenditure to grow at a faster or slower rate, in a given year, than if the two elements shared a common indexation factor.
- ²⁹ Although this measure does provide tax relief for individuals, it is implemented through the corporate tax system. See under "interest credited to life insurance policies" in Table 2 for estimates and projections of this tax expenditure.
- ³⁰ The decline in this tax expenditure reflects increases in the basic personal amount and reductions in the lowest personal income tax rate implemented in the 2000 budget, the 2000 *Economic Statement and Budget Update*, the 2005 *Economic and Fiscal Update* and the 2006 budget.
- ³¹ Estimates are based on data received from Veterans Affairs Canada. As part of the New Veterans Charter, in 2006, the Canadian Forces Income Support Benefit will be established for eligible low-income veterans.
- ³² As of 2006, the new disability award has replaced the veterans' disability pension for eligible new applicants (current disability pensioners will be grandfathered). Thus, beginning in 2007, tax expenditures are expected to decrease.
- ³³ As of 2006, the new disability award has replaced the veterans' disability pension for eligible new applicants (current disability pensioners will be grandfathered).
- ³⁴ The 2006 budget increased the maximum amount that can be claimed under the pension income credit to \$2,000 from \$1,000 for the 2006 and subsequent tax years.
- ³⁵ The October 31, 2006, Tax Fairness Plan proposes to allow pension income splitting commencing in 2007. The measure will allow any Canadian resident who receives qualifying pension income to allocate to their resident spouse or common-law partner up to one-half of that income.
- ³⁶ Estimates and projections vary from those in last year's report due to changes in tax rates and projected levels of contributions, assets and withdrawals. Observed levels of registered pension plan (RPP) and registered retirement savings plan (RRSP) assets for 2001 to 2004 are used to determine the rate of return on investment, and as such, the tax expenditure will naturally vary from year to year, depending on the derived rate of return. Tax expenditures will be higher in years when assets grow strongly, reflecting the tax forgone on investment income, and lower in years when assets grow slowly or decline. For years where RPP and RRSP asset growth is projected, the tax expenditure projections are much more stable since a 6.4-per-cent nominal annual rate of return is used for those years. This is consistent with the rate of return used to calculate the present-value tax expenditure estimates and projections for RPPs and RRSPs (for more details on the derivation of the rate of return, see the 2001 *Tax Expenditures and Evaluations* report).
- ³⁷ The ratio of 1999 RRSP assets reported in Statistics Canada's Survey of Financial Security (SFS) to 1999 RRSP assets reported in the Statistics Canada publication *Pension Plans in Canada* is used to adjust RRSP assets for 2001 to 2004 to reflect the more comprehensive SFS estimate, which includes funds in self-administered plans (the ratio is \$408 billion/\$268 billion or 1.52).
- ³⁸ The present-value estimates reflect the lifetime cost of a given year's contributions. This definition is different from that used for the cash-flow estimates and thus the two sets of estimates are not directly comparable. Further information on how these estimates are calculated is contained in the paper "Present-Value Tax Expenditure Estimates of Tax Assistance for Retirement Savings," which was published in the 2001 *Tax Expenditures and Evaluations* report.
- ³⁹ The present-value tax expenditure estimates and projections presented in this year's report are lower than in last year's report due to updated estimates of applicable tax rates, which take into account the enhanced gross-up and tax credit for dividends paid by large corporations that will apply as of 2006, and changes in projected RPP/RRSP contribution levels.
- ⁴⁰ Projected tax expenditures reflect anticipated increases in home resales and resale housing prices. The estimates and projections for this tax expenditure can vary significantly from year to year, primarily due to unanticipated year-to-year fluctuations in the number of residence resales and in the average price of residences.
- ⁴¹ Budget 2006 introduced an enhanced gross-up and dividend tax credit for eligible dividends (generally those paid by large corporations) after 2005.
- ⁴² Formerly, some families with young children who claimed little or no child care expenses were eligible to receive the Canada Child Tax Benefit (CCTB) under-7 supplement. Thus, the value of the tax expenditure was partially offset by the increase in the CCTB under-7 supplement that would follow any decrease in the amount of child care expenses claimed. The increase in the tax expenditure in 2006 and later years reflects the phase-out of the CCTB under-7 supplement as of June 30, 2006, for children under the age of 6, and June 30, 2007, for 6-year-old children.
- ⁴³ The 2004 budget replaced the attendant care deduction with a broader disability supports deduction, beginning with the 2004 tax year. The 2005 budget expanded the list of expenses eligible for the disability supports deduction.



- ⁴⁴ Projections have been revised to reflect market conditions.
- ⁴⁵ This includes employee- and employer-paid premiums by and for self-employed workers.
- ⁴⁶ Self-employed individuals may deduct the employer share of their Canada/Quebec Pension Plan contributions paid for their own coverage. The estimates and projections shown are relative to a benchmark system in which no such deduction (or credit) is provided.
- ⁴⁷ This tax expenditure applies to a subset of resource-related deductions. Data are available for 2001 to 2003 on the volume of reclassified shares and are used to calculate these estimates. Projections are based on forecast growth rates in the oil and gas industry.
- ⁴⁸ A number of substantial methodological difficulties call into question the accuracy and utility of estimates and projections of the revenue implications of non-taxation of lottery and gambling winnings. The first methodological difficulty is that the data on payouts/winnings is incomplete. There is solid information on aggregate payouts only for government-run lotteries and bingos. Data on payouts at casinos, video lottery terminals, horseracing, and racetrack slot machines, which constitute a rising share of total spending on gaming, is fragmentary. In addition, no data is available on the payouts/winnings from activities sponsored by charities and other non-governmental organizations. Second, even if complete information on aggregate payouts were available, the revenue implications of non-taxation still could not be determined with precision. For example, if the benchmark tax system were to include taxation of gambling and lottery winnings, consideration would have to be given to including a deduction for expenses incurred in earning this income, i.e. ticket purchases or wagers/losses. This deduction could be allowed either against all income or against only lottery and gambling winnings. A threshold below which winnings would not be taxable would also be necessary, due to the large administrative cost of taxing very small prizes. In the absence of information on the distribution of prizes and the incomes of winners, the resulting potential tax base is difficult to estimate. Further, it would be impractical to tax some forms of winnings (e.g. slot machines) because of the way in which prizes are paid out.

Another important point to note is that under federal-provincial agreements negotiated in 1979 and 1985, the federal government, in exchange for an ongoing payment, undertook to refrain from re-entering the field of gaming and betting and to ensure that the rights of the provinces in that field are not reduced or restricted.



Table 2

Corporate Income Tax Expenditures*

	Estimates		Projections ¹					
	2001	2002	2003	2004	2005	2006	2007	2008
(\$ millions)								
Charities, Gifts and Contributions								
Deductibility of charitable donations ²	490	295	260	320	360	395	415	405
Deductibility of gifts of cultural property and ecologically sensitive land ³	13	26	9	24	9	9	9	9
Deductibility of gifts to the Crown	S	S	S	S	S	S	S	S
Non-taxation of registered charities	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-taxation of other non-profit organizations (other than registered charities)	185	175	160	160	145	165	165	185
Political contribution tax credit ⁴	S	S	S	S	S	S	—	—
Culture								
Canadian film or video production tax credit	160	155	150	165	175	185	195	205
Non-deductibility of advertising expenses in foreign media	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Federal-Provincial Financing Arrangements								
Income tax exemption for provincial and municipal corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Transfer of income tax room to provinces	1,145	1,065	1,210	1,455	1,590	1,730	1,810	1,855
Logging tax credit ⁵	17	22	14	59	36	39	40	42
General Business and Investment								
Accelerated write-off of capital assets and resource-related expenditures	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral through capital gains rollovers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Taxation of capital gains upon realization	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Partial inclusion of capital gains ⁶	3,270	2,320	2,465	3,330	3,170	3,370	3,525	3,565
Expensing of advertising costs ⁷	50	-80	30	45	35	35	40	40
Atlantic investment tax credit ⁸								
Earned and claimed in current year	110	91	67	120	130	135	145	150
Claimed in current year but earned in prior years	220	220	85	150	165	180	195	210
Earned in current year but carried back to prior years	19	7	11	4	11	12	13	14
Total expenditure	349	318	163	274	306	327	353	374

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, published in 2004 and available on the Department of Finance website (www.fin.gc.ca), for a discussion of the reasons for this.

Table 2

Corporate Income Tax Expenditures (cont'd)

	Estimates		Projections ¹					
	2001	2002	2003	2004	2005	2006	2007	2008
	(\$ millions)							
Scientific research and experimental development investment tax credit								
Earned and claimed in current year	1,800	1,860	1,755	1,770	1,755	1,900	2,060	2,235
Claimed in current year but earned in prior years ⁹	495	480	610	930	1,010	1,095	1,185	1,285
Earned in current year but carried back to prior years	89	96	88	94	93	95	97	98
Total expenditure	2,384	2,436	2,453	2,794	2,858	3,090	3,342	3,618
Write-off of capital assets before available for use	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Apprenticeship Job Creation Tax Credit ¹⁰	—	—	—	—	—	145	200	205
Small Business								
Deduction of allowable business investment losses ¹¹	35	35	25	21	23	28	31	33
Low tax rate for small businesses ¹²	3,650	3,610	3,440	3,305	3,560	3,940	4,250	4,420
Accelerated rate reduction for small businesses ¹³	50	65	35	7	—	—	—	—
Non-taxation of provincial assistance for venture investments in small businesses	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
International								
Exemption from Canadian income tax of income earned by non-residents from the operation of a ship or aircraft in international traffic	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemption from tax for international banking centres	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemptions from non-resident withholding tax ¹⁴								
Dividends	340	325	400	590	505	625	685	720
Interest								
On deposits	400	185	135	110	120	120	115	120
On long-term corporate debt	195	170	195	365	260	260	255	260
Other ¹⁵	220	330	415	260	310	310	305	310
Rents and royalties								
Copyright royalties	36	29	43	31	36	38	40	42
Rents and royalties for the use of, or right to use, other property	115	125	91	90	105	110	115	125
Research and development royalties	3	4	S	S	S	S	S	S
Natural resource royalties	S	S	S	S	S	S	S	S
Rents from real property	S	S	S	S	S	S	S	S
Management fees	74	70	64	65	73	76	79	82
Estate or trust income	10	18	4	11	12	13	13	14



Table 2

Corporate Income Tax Expenditures (*cont'd*)

	Estimates		Projections ¹					
	2001	2002	2003	2004	2005	2006	2007	2008
	(\$ millions)							
Non-taxation of life insurance companies' world income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tax exemption on income of foreign affiliates of Canadian corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sectoral Measures								
<i>Farming</i>								
Cash-basis accounting	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deferral of income from destruction of livestock	S	S	S	4	S	S	S	S
Deferral of income from grain sold through cash purchase tickets ¹⁶	-18	14	S	S	14	S	S	S
Flexibility in inventory accounting	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Agricultural cooperatives ¹⁷	-	-	-	-	-	30	30	30
<i>Resource</i>								
Corporate mineral exploration tax credit ¹⁸	-	-	S	12	21	26	35	46
Deductibility of contributions to a qualifying environmental trust	S	S	S	S	S	S	S	S
Earned depletion ¹⁹	45	21	14	28	38	38	33	30
Net impact of the resource allowance and the non-deductibility of Crown royalties and mining taxes ²⁰	285	360	365	395	420	225	25	-
Tax rate on resource income ²¹	-85	-210	-250	-595	-680	-335	-40	-
Transitional arrangement for the Alberta Royalty Tax Credit ²²	-	-	S	S	3	5	S	S
<i>Other Sectors</i>								
Exemption from branch tax for transportation, communications, and iron ore mining corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Film or video production services tax credit ²³	81	77	110	115	120	130	135	140
Low tax rate for credit unions ²⁴	79	80	69	67	75	82	85	83
Manufacturing and processing allowance ²⁵	1,520	1,130	470	75	-	-	-	-
Surtax on the profits of tobacco manufacturers ²⁶	-80	-75	-75	-55	-55	n.a.	n.a.	n.a.

Table 2

Corporate Income Tax Expenditures (*cont'd*)

	Estimates		Projections ¹					
	2001	2002	2003	2004	2005	2006	2007	2008
	(\$ millions)							
Other Measures								
Deductibility of countervailing and anti-dumping duties	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deductibility of earthquake reserves	7	5	5	5	5	6	6	6
Deferral through use of billed-basis accounting by professional corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Holdback on progress payments to contractors ²⁷	20	5	35	40	40	40	40	40
Interest credited to life insurance policies	66	68	76	81	82	85	89	93
Non-taxation of certain federal Crown corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Memorandum Items								
<i>Mechanisms for the Integration of Personal and Corporate Income Tax</i>								
Investment corporation deduction	S	S	S	S	S	S	S	S
Refundable capital gains for investment corporations and mutual fund corporations ²⁸	520	35	55	115	130	135	140	145
Refundable taxes on investment income of private corporations ²⁹								
Additional Part I tax ³⁰	-655	-670	-800	-1,150	-1,285	-1,395	-1,490	-1,590
Part IV tax	-2,105	-1,940	-1,950	-1,965	-2,140	-2,310	-2,465	-2,585
Dividend refund	4,145	3,805	3,265	3,910	4,260	4,600	4,910	5,145
Net expenditure	1,385	1,195	515	795	825	895	955	970
<i>Expenses Incurred to Earn Income</i>								
Deduction for intangible assets	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Deductibility of provincial royalties (joint venture payments) for the Syncrude project (remission order) ³¹	n.a.	n.a.	n.a.	—	—	—	—	—
<i>Loss Offset Provisions</i>								
Capital loss carry-overs								
Net capital losses carried back ³²	585	1,425	465	210	205	250	285	310
Net capital losses applied to current year	305	190	320	440	420	445	465	475
Farm and fishing loss carry-overs	22	18	18	23	20	22	23	22



Table 2
Corporate Income Tax Expenditures (*cont'd*)

	Estimates		Projections ¹					
	2001	2002	2003	2004	2005	2006	2007	2008
(\$ millions)								
Non-capital loss carry-overs								
Non-capital losses carried back	2,840	2,000	1,900	1,185	1,230	1,415	1,575	1,715
Non-capital losses applied to current year	2,995	3,385	3,060	3,205	3,190	3,315	3,405	3,280
<i>Other</i>								
Non-resident-owned investment corporation refund ³³	285	420	135	—	—	—	—	—
Partial deduction of meals and entertainment expenses	270	275	280	305	335	370	385	365
Patronage dividend deduction	240	390	330	355	405	440	455	435

Notes:

- ¹ Unless otherwise indicated in the footnotes, changes in the projections from those in last year's edition of this document as well as variations from year to year result from changes in the explanatory economic variables upon which the projections are based. These changes and variations also reflect the availability of new data and improvements to the methodology used to derive the estimates/projections. Estimates and projections reflect the impact of the reduction in the general corporate income tax rate to 27 per cent on January 1, 2001, 25 per cent on January 1, 2002, 23 per cent on January 1, 2003, 21 per cent on January 1, 2004, and 20.5 per cent on January 1, 2008. The corporate surtax, which raises these rates by 1.12 percentage points, will be eliminated on January 1, 2008.
- ² Donations in 2001 were significantly higher than the historical average.
- ³ The increase observed for 2004 reflects the availability of new information compiled from corporate income tax returns filed for the 2004 tax year.
- ⁴ The Federal Accountability Act prohibits political contributions from corporations. Accordingly, this tax expenditure will be zero after 2006.
- ⁵ Increases for 2004 and later years reflect a significant improvement in industry performance in 2004.
- ⁶ The estimate for 2001 has been revised downward relative to last year to reflect improvements in methodology and the impact of the partial inclusion of capital gains on the value of the refundable capital gains for investment and mutual fund corporations. The lower amount in 2002 reflects an estimated decrease in capital gains as well as the reduction in the corporate income tax rate. For the most part, the lower amounts in 2002 and 2003 are due to a decrease in capital gains resulting from declines in the market value of technology stocks.
- ⁷ The amount of this tax expenditure can fluctuate significantly from year to year depending on the amount of advertising expenses claimed.
- ⁸ Cyclical investments in oil and gas projects explain the downward trend from 2001 to 2003.
- ⁹ The large amounts for 2004 to 2007 relative to last year's estimates reflect the availability of preliminary data for 2004, which shows a substantial increase in the profitability of large firms engaged in scientific research and experimental development activities allowing them to use credits earned in previous years.
- ¹⁰ This measure was introduced in the 2006 budget (see the "What's New in the 2006 Report" section for more details).
- ¹¹ The amount of this tax expenditure can fluctuate from year to year depending on the amount of current-year losses and the availability of income against which to apply these losses.
- ¹² The reduction in the tax expenditure from 2001 to 2004 results from reductions in the benchmark rate. Projections reflect the increase in the amount of income eligible for the small business deduction (from \$200,000 in 2002 to \$400,000 in 2007) and the decrease in the small business tax rate from 12 per cent in 2007 to 11.5 per cent in 2008, followed by an additional half-point reduction, to 11 per cent, in 2009 announced in the 2006 budget. Methodological improvements have resulted in higher tax expenditures in all years compared to the 2005 publication.
- ¹³ This measure was announced in the 2000 budget and became effective January 1, 2001. On that date the general federal corporate income tax rate on income between \$200,000 and \$300,000 earned by a Canadian-controlled private corporation from an active business carried on in Canada was reduced to 21 per cent. The lower rate on the general income of small businesses and the change in the general federal corporate income tax rate effective January 1, 2001, only partially affect the estimate for tax year 2001 since many firms reporting income in the 2001 tax year earned a portion of that income in the 2000 calendar year, before the rate reductions were introduced. Subsequent declines in the tax expenditure are a result of the reduction in the general corporate income tax rate and the increase, announced in the 2003 budget, in the amount of income eligible for the small business deduction. This measure was effectively eliminated on January 1, 2004, when the general corporate income tax rate was reduced to 21 per cent. Some tax expenditure occurs in 2004, however, as many firms reporting income in the 2004 tax year earned a portion of that income in the 2003 calendar year.

- ¹⁴ Estimates and projections were computed on the basis of an analysis of payments to non-residents and withholding tax collections available for 1997 to 2004. Significant variations from last year's estimates and projections are due mainly to revised and new data, as well as to specific methodological changes that were adopted to address certain deficiencies identified with the data.
- ¹⁵ This category includes interest paid to non-resident persons or organizations that would be exempt from income tax in Canada were they residents in Canada. Also included is interest paid under certain securities-lending arrangements exempt under subparagraph 212(1)(b)(xii) of the Income Tax Act, and interest exempt under certain other domestic and treaty provisions.
- ¹⁶ Projections are calculated using a historical average growth rate. Since tax expenditures are estimated on a cash-flow basis, an increase in the balance of uncashed grain tickets represents additional income that is being deferred and results in a positive tax expenditure. A decrease in the balance of uncashed grain tickets indicates that less income is being deferred and results in a negative tax expenditure. The tax expenditure estimates and projections are volatile over time since a small number of corporations are affected in a very specific sector. Estimates and projections are based on data obtained from Statistics Canada.
- ¹⁷ This measure will apply only to patronage dividends paid after 2005. See the "What's New in the 2005 Report" section in the 2005 *Tax Expenditures and Evaluations* publication for further details.
- ¹⁸ This credit was introduced in the 2003 budget and phased in starting at 5 per cent in 2003, 7 per cent in 2004 and 10 per cent in subsequent years. In the prior years, tax expenditure estimates for this credit were based primarily on exploration estimates. The projections have now been modified to incorporate actual tax collection information for 2003 and 2004. Cost estimates include the value of credits used in the year, whether they were earned in the current year or carried forward from a previous year, and credits carried back to a previous year in the current year's tax return.
- ¹⁹ Additions to earned depletion pools were eliminated as of January 1, 1990. Determination of the tax expenditure reflects projected use of the existing earned pools.
- ²⁰ The tax expenditure is calculated as the revenue cost of the resource allowance net of Crown royalties and provincial mining taxes. Over a five-year period beginning in 2003, the resource allowance is being phased out and a deduction for Crown royalties and mining taxes phased in, so that by 2007, this tax expenditure will be removed. See the technical paper "Improving the Income Taxation of the Resource Sector in Canada" (Department of Finance, March 2003) for further details. Costs for 2007 relate to companies that do not have a December 31 year-end for which the 2007 tax year includes a portion of 2006 activities.
- ²¹ Budget 2003 announced the extension to resource income of the lower general corporate income tax rate, to be phased in over five years beginning in 2003. Although the rate difference no longer exists in 2007, there are still costs associated with 2006 rates for companies that do not have a December 31 year-end and the 2007 tax year includes some income earned in 2006.
- ²² The Alberta government has announced that the Alberta Royalty Tax Credit (ARTC) will be eliminated as of January 1, 2007. Costs for the federal transitional measure will continue into 2007 and 2008 because some credit amounts related to 2006 will only be received in 2007, and for companies that do not have a December 31 year-end, some amounts received in 2007 will fall into their 2008 taxation year.
- ²³ Projections for 2003 and subsequent years reflect the increase of the rate of the credit from 11 per cent to 16 per cent.
- ²⁴ The increases from last year's projections for 2006 and 2007 are due to an increase in the growth rate of taxable income. This tax expenditure also includes credit unions' deposit insurance corporations, which receive similar tax treatment to credit unions.
- ²⁵ Although this tax expenditure was eliminated on January 1, 2004, when the general corporate income tax rate was reduced to 21 per cent, many firms reporting income in the 2004 taxation year earned a portion of that income in the 2003 calendar year.
- ²⁶ The decrease in this tax expenditure after 2003 is due to the decrease in tobacco manufacturers' profits. For confidentiality reasons, projections for 2006 to 2008 are not published.
- ²⁷ The amount of this tax expenditure can fluctuate significantly from year to year depending primarily on the level of construction activity. Therefore, it is projected at its historical average.
- ²⁸ For the most part, the large declines in 2002 and 2003 are due to a decrease in capital gains resulting from declines in the market value of technology stocks.
- ²⁹ Refundable tax provisions of the corporate income tax system provide some integration of the corporate and personal income tax regimes. For more information about these measures, see the 2004 publication *Tax Expenditures: Notes to the Estimates/Projections*.
- ³⁰ This item includes the additional 6% per cent refundable tax on investment income as well as the Part I tax paid on investment income in excess of the benchmark rate. Increases in this tax expenditure result from the increase in the difference between the Part I tax on investment income and the benchmark rate.
- ³¹ The cost of the Syncrude Remission Order ("Order Respecting the Remission of Income Tax for the Syncrude Project," P.C. 1976-1026, May 6, 1976 [C.R.C. 1978, Vol. VII, c. 794]) is published annually in the *Public Accounts of Canada* (ISBN 0-660-177792-7). The order expired on December 31, 2003.
- ³² Large values in 2001 and 2002 reflect, for the most part, the capital losses recorded in these two years resulting from declines in the market value of technology stocks.
- ³³ This measure was repealed in 2000. To allow for an orderly restructuring of their operations, however, existing non-resident-owned investment corporations were entitled to retain their status until the end of their last tax year that began before 2003.



Table 3

GST Tax Expenditures*

	Estimates				Projections			
	2001	2002	2003	2004	2005	2006	2007	2008
(\$ millions)								
Aboriginal Self-Government								
Refunds for Aboriginal self-government ^{1,2}	S	S	S	S	S	S	S	S
Business								
Exemption ³ for domestic financial services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemption for ferry, road and bridge tolls ⁴	5	10	10	5	5	5	5	5
Exemption and rebate for legal aid services	25	25	25	25	30	25	25	30
Non-taxability of certain importations ⁵	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Rebates for foreign visitors ⁶	80	85	85	70	80	70	20	–
Small suppliers' threshold	155	165	170	180	195	180	160	170
Zero-rating ⁷ of agriculture and fish products and purchases	S	S	S	S	S	S	S	S
Zero-rating of certain purchases made by exporters	S	S	S	S	S	S	S	S
Charities and Non-Profit Organizations								
Exemption for certain supplies made by non-profit organizations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Rebates for registered charities ¹	240	255	270	280	295	290	280	295
Rebates for non-profit organizations ¹	60	60	70	70	75	75	70	75
Education								
Exemption for education services (tuition) ⁴	395	435	470	505	535	525	515	545
Rebates for book purchases made by qualifying public institutions ⁸	30	30	30	30	30	30	30	35
Rebates for colleges ¹	80	85	85	80	80	80	80	80
Rebates for schools ¹	375	380	380	400	420	410	400	420
Rebates for universities ¹	180	205	240	260	275	270	260	270
Health Care								
Exemption for health care services ⁴	325	445	480	505	525	515	510	555
Rebates for hospitals ¹	390	395	425	465	490	480	465	485
Zero-rating of medical devices ⁴	120	135	145	150	160	155	155	165
Zero-rating of prescription drugs ⁴	430	465	500	535	565	555	545	575
Households								
Exemption for child care and personal services ⁴	130	130	130	125	130	130	125	135
GST/HST credit ⁹	3,130	3,250	3,415	3,460	3,545	3,620	3,660	3,720
Zero-rating of basic groceries ⁴	3,270	3,515	3,650	3,800	4,015	3,935	3,855	4,095

* The elimination of a tax expenditure would not necessarily yield the full tax revenues shown in the table. See the publication *Tax Expenditures: Notes to the Estimates/Projections*, published in 2004 and available on the Department of Finance website (www.fin.gc.ca), for a discussion of the reasons for this.

Table 3
GST Tax Expenditures (cont'd)

	Estimates				Projections			
	2001	2002	2003	2004	2005	2006	2007	2008
	(\$ millions)							
Housing								
Exemption for sales of used residential housing and other personal-use real property	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exemption for residential rent (long-term) ⁴	1,275	1,355	1,420	1,445	1,515	1,490	1,465	1,565
Rebates for new housing ¹⁰	640	785	835	925	990	1,015	970	1,050
Rebates for new residential rental property	40	45	50	60	60	65	60	60
Municipalities								
Exemption for municipal transit ⁴	85	105	105	160	170	165	165	175
Exemption for water and basic garbage collection services ⁴	160	180	185	230	245	240	235	250
Rebates for municipalities ^{1,11}	700	725	805	1,435	1,510	1,480	1,435	1,500
Memorandum Items								
<i>Recognition of Expenses Incurred to Earn Income</i>								
Rebates to employees and partners ¹²	105	105	115	115	120	110	100	105
<i>Other</i>								
Exemption for quick method accounting	200	205	215	230	245	240	230	245
Partial input tax credits for meals and entertainment expenses ¹³	120	125	135	160	180	170	155	155

Notes:

- ¹ The public sector body rebates are based on Canada Revenue Agency administrative data for the years up to and including 2004. The projections are based on the National GST Model of the Department of Finance.
- ² These refunds are paid to Aboriginal governments that have an agreement providing for a GST/HST (harmonized sales tax) refund for goods and services acquired for self-government activities.
- ³ Final consumers and businesses pay no tax on exempt goods and services. Vendors, however, are not entitled to claim input tax credits to recover the GST/HST paid on inputs to these products.
- ⁴ The National GST Model used to generate these estimates is based on the 2002 national input-output tables from Statistics Canada and the latest release of the National Income and Expenditure Accounts.
- ⁵ Certain importations are tax-free including, for example, duty-free personal importations by Canadian travellers.
- ⁶ The Visitor Rebate Program is proposed to be eliminated effective April 1, 2007.
- ⁷ Final consumers and businesses pay no tax on zero-rated goods and services. Vendors of zero-rated products are entitled to claim input tax credits to recover the GST/HST paid on inputs to these products.
- ⁸ Book rebates are now taken directly from administrative data for 2001 to 2004.
- ⁹ Based on personal income tax data.
- ¹⁰ Estimates for the housing rebate are based on information provided by Statistics Canada.
- ¹¹ The rebate rate for municipalities increased from 57.14 per cent to 100 per cent effective February 1, 2004.
- ¹² This item includes the apprentice vehicle mechanics' tools deduction.
- ¹³ Based on tax expenditure estimates and projections reported for the personal and corporate income tax systems.

Part 2

TAX EVALUATIONS AND RESEARCH REPORTS

TAXES ON BUSINESS INVESTMENT:
AN INTERNATIONAL COMPARISON OF
MARGINAL EFFECTIVE TAX RATES
IN THE MANUFACTURING SECTOR



Introduction

The amount and quality of capital Canadians have to work with is a key determinant of their productivity, which is the ultimate determinant of the wages and hence the living standards that they can enjoy. The decision to invest is highly sensitive to the rate of return, and taxes have a direct and measurable effect on the rate of return. In order to assess the impact of taxes on capital spending, it is important to consider not only the statutory tax rate on corporate income but also all other elements of the tax system, which is often measured by what is known as the marginal effective tax rate (METR) on investment.

Last year's edition of *Tax Expenditures and Evaluations* contained a report summarizing the METR methodology and presenting estimates for all jurisdictions in Canada and the United States. This report extends the earlier analysis of Canada's tax competitiveness by comparing the tax treatment of investment by manufacturers in Canada and 35 other countries. The focus is on manufacturing because it represents a large share of Canada's inbound foreign direct investment and because manufacturing investment is particularly sensitive to international differences in rates of return. Comparisons with the US are especially important given the close economic linkages between the two countries, but it is also revealing to make comparisons with other members of the Group of Seven (G7), with other smaller open economies and with emerging economies.

The main findings of the report are:

- Canada's manufacturing METR compares favourably with the US in 2011, when the measures announced in 2006 will be fully phased in. In the G7, only the United Kingdom and Italy have lower METRs.
- Canada places a higher tax burden on manufacturing investment than most other countries, having the second highest METR among the group of smaller open economies and the fourth highest among emerging economies.
- Canada stands out as one of five countries imposing capital taxes and one of three countries, including the US and China, levying retail sales taxes on investment goods.
- Canada and the US are among eight countries in the comparison group that single out the manufacturing sector for special tax treatment such as lower tax rates and higher depreciation allowances.

Marginal Effective Tax Rates—Methodology, Assumptions and Caveats

A marginal effective tax rate is a comprehensive indicator of the tax burden on new investment. It combines in a single measure the statutory tax rate that applies to corporate income, factors that affect the corporate tax base—capital cost allowances and interest deductibility—and profit-insensitive levies such as capital taxes, investment tax credits and sales taxes on investment goods.¹ A METR measures the extra return on an investment required to pay corporate-level taxes, expressed as a percentage of the total return to shareholders. For example, if the gross-of-tax return to shareholders is 6 per cent and if the corporate tax system reduces this return to 4 per cent, the METR would be 33 per cent.²

¹ A more detailed review of the methodology is presented in the 2005 edition of *Tax Expenditures and Evaluations*.

² Calculated as $(6-4)/6$. The return to shareholders is net of all expenses including depreciation.

In addition to tax parameters, calculation of METRs requires assumptions about the financial structure of firms, the rate of return on debt and equity and the rate of inflation, all of which are used to calculate the financial cost of capital.³ The estimates are also sensitive to the capital assets—machinery and equipment, buildings, inventories—used by firms and how quickly they depreciate.⁴ In order to focus on differences in tax systems, the same “economic” assumptions are used for all countries included in the international comparison. As a result, the comparisons examine the impact of applying different tax regimes to a given investment in Canada.

An alternative approach would be to use country-specific tax and economic variables to calculate METRs. An international comparison would then show relative tax burdens on investment as they are affected by the tax system as well as by such factors as the rate of return on debt and equity, inflation and the mix of capital assets used in the investment. A case can be made that inflation is likely to be the single biggest source of variance in economic variables across countries, so some analysts present METR estimates based on common assumptions for all economic variables except inflation.⁵ The impact on the estimates of making this change is shown in Annex 1.

The METRs presented in this document are applicable to a large taxable firm making an investment that is small relative to its ongoing operations. This assumption ensures that there is no delay in using the deductions and credits available on the investment. A delay would result in a higher effective tax rate.

Tax Competitiveness

While the METR is a comprehensive indicator of how the tax system is affecting the decision to invest, there are circumstances in which the statutory tax rate is a more relevant indicator of tax competitiveness.

- Differences in statutory rates determine the incentive for multinational enterprises to shift taxable income across international boundaries.
- METRs are calculated assuming that the investment generates just enough income to pay shareholders the minimum rate of return. Firms undertaking projects that are expected to exceed this minimum return would be particularly concerned about the statutory rate, since all income above the minimum return is taxed at that rate.

³ The financial cost of capital is a weighted average of the return on debt and equity paid by firms. The weights are determined by the economy-wide debt-asset ratio of 40 per cent. The returns on debt and equity are measured in real terms (i.e. observed returns are reduced by the inflation rate, assumed to be 2 per cent) and adjusted for risk. The adjustment for risk recognizes that suppliers of capital require a premium for investing in riskier assets, but in the long run expect to obtain the same real, risk-adjusted rate of return on all investments.

⁴ The economic depreciation rates used in this study are based on analytical work undertaken at Statistics Canada over the last several years. This analysis indicates that the official estimates now being used by Statistics Canada are too low, particularly for structures. See Gellatly, G., M. Tanguay, and Y. Beiling, “An Alternative Methodology for Estimating Economic Depreciation: New Results Using a Survival Model,” *Productivity Growth in Canada*, Statistics Canada, Catalogue No. 15-204-XPE (2002); Baldwin, J., G. Gellatly, A. Patry, and M. Tanguay, “Estimating Depreciation Rates for the Productivity Accounts” Statistics Canada Working Paper, forthcoming; and Patry, A. “Economic Depreciation and Retirements of Canadian Assets: A Comprehensive Empirical Study,” Statistics Canada Working Paper, forthcoming.

⁵ Mintz, J. M., D. Chen, Y. Guillemette and F. Poschmann, “The 2005 Tax Competitiveness Report: Unleashing the Canadian Tiger,” C.D Howe Institute Commentary No. 216 (September 2005).

It is therefore important to consider both the statutory rate and the marginal effective rate when assessing the competitiveness of the tax system.

Tax competitiveness is clearly not the only factor affecting foreign direct investment (FDI). Wage costs, the quality of labour, infrastructure, political risk, agglomeration effects (i.e. the presence of industrial clusters and a large market) and distance to export markets are some of the other factors affecting the decision to invest in a particular location. But investment decisions are highly sensitive to the rate of return, and taxes have a direct and measurable impact on the rate of return.

Tax competitiveness with the United States is particularly important since that country supplies two-thirds of Canada's inbound FDI and is the destination for more than 40 per cent of outbound FDI by Canadians. Further, overseas countries often invest in Canada to serve the North American market and would therefore be comparing locations in Canada and the US. Changes proposed by the federal and provincial governments in 2006 will give Canada a substantial statutory tax rate advantage over the US in 2011, assuming no further changes in the US, on both general and manufacturing income (Table 1). Canada's advantage as measured by the marginal effective tax rate on investment is, however, considerably smaller (Table 2).

Table 1
**Statutory Tax Rates on Corporate Income in 2011—Canada and the US
(Combined Federal/Provincial-State)**

	Canada	US (%)	Canada-US
Pre-2006 measures			
General income	35.4	39.4	-4.0
Manufacturing	34.3	36.1	-1.8
Combined	35.0	37.9	-2.9
Post-2006 measures¹			
General income	31.1	39.4	-8.3
Manufacturing	30.3	36.1	-5.8
Combined	30.8	37.9	-7.1

¹ Includes measures announced in federal and provincial/state budgets as well as Canada's Tax Fairness Plan and Saskatchewan retail sales tax reduction, both announced in October 2006.

Despite the dominant position of the US, Canada does compete against many other countries for investment. For example, Mexico is an alternative location for FDI by US and overseas firms if transport costs, duty-free entry or other factors necessitate a North American location.⁶ In many cases, however, there is no compelling reason to locate in North America, so Canada is competing against a long list of countries for inbound FDI. Finally, Canadian multinational enterprises often have the choice of serving foreign markets through exports from Canada or by setting up production facilities abroad. More than half of Canada's non-US outbound FDI goes to the European Union while the balance is spread over a large number of developed and emerging economies.

⁶ The free trade agreements (FTAs) between Mexico and a large number of countries strengthen Mexico's position as a competitor for overseas investment. Mexico has FTAs with the European Union, Japan, the European Free Trade Association, most Latin American countries, except the Mercosur, and Israel. Mexico is currently negotiating FTAs with the Mercosur and South Korea.



Table 2

METRs in 2011—Canada and the US (Combined Federal/Provincial-State)

	Canada	US (%)	Canada-US
Pre-2006 measures			
Manufacturing	30.7	30.0	0.7
All sectors	34.6	34.4	0.2
Post-2006 measures¹			
Manufacturing	27.0	30.0	-3.0
All sectors	31.1	34.4	-3.3

¹ Includes measures announced in federal and provincial state budgets as well as Canada's Tax Fairness Plan and Saskatchewan retail sales tax reduction, both announced in October 2006.

International Comparison

In order to assess the competitiveness of Canada's tax system, METRs for 36 countries have been prepared. All 30 members of the Organisation for Economic Co-operation and Development are included, along with four emerging economies, Hong Kong Special Administrative Region (SAR) and Singapore. The estimates include national and sub-national taxes,⁷ except those applicable in selected regions of sub-national jurisdictions. This report is primarily concerned with how Canada's business tax system affects FDI, so it focuses on METRs for the manufacturing sector,⁸ which accounts for more than 40 per cent of Canada's inbound FDI and the bulk of "footloose" FDI—i.e. FDI that supports production that is not tied to a specific location, making it particularly sensitive to tax differentials across countries. In contrast, most service sector industries are oriented to the domestic market, making FDI in these industries less sensitive to international tax differentials.⁹

Canada taxes business investment in the manufacturing sector at a high rate relative to the countries in the comparison group, occupying the ninth highest position for the METR, projected for 2011 (Chart 1). The impact on Canada's tax competitiveness of corporate tax reductions proposed in 2006 is highlighted in Chart 1, which shows Canada with the sixth highest METR prior to these initiatives. The corporate tax reductions proposed by the federal government in 2006 will trim 3.2 percentage points from the Canadian manufacturing METR in 2011, while provincial measures will subtract a further 0.6 percentage points. These proposed changes are likely affecting investment decisions now, particularly for projects with long lead times, because investment is affected by *expected* after-tax returns.

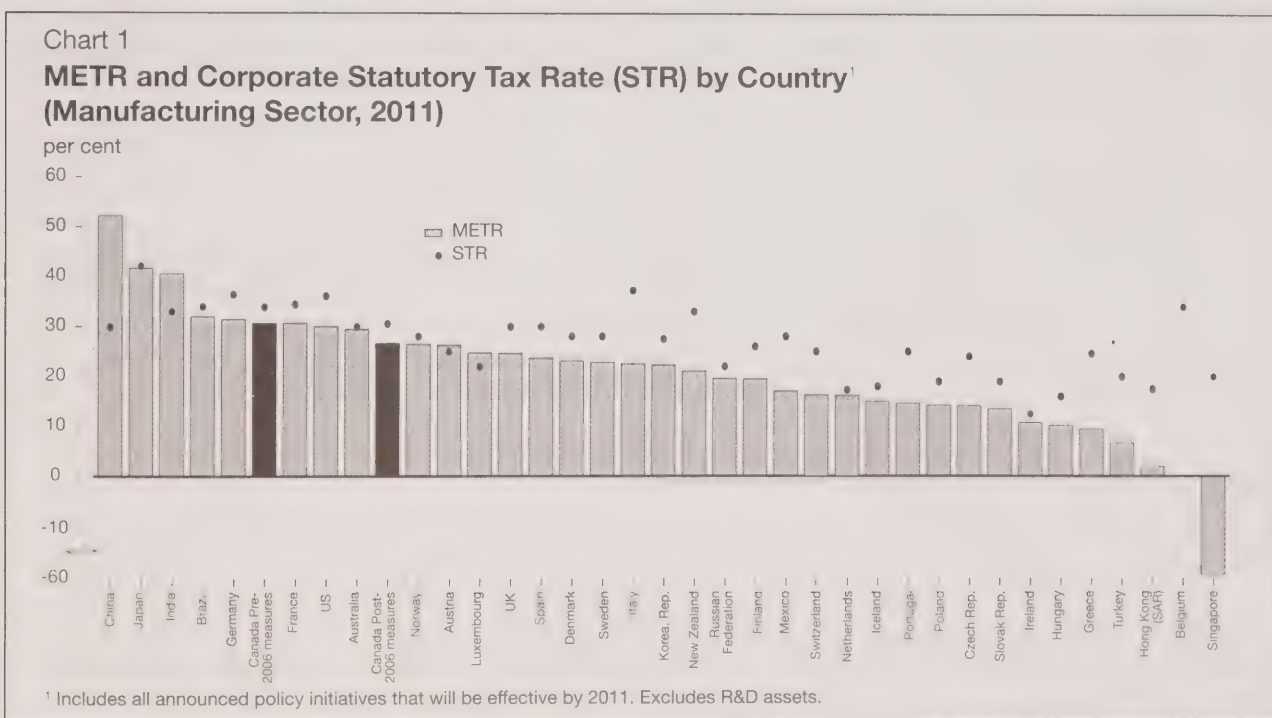
⁷ The estimates exclude property taxes and other business taxes imposed by municipal governments. The main reason for their exclusion is that part of local taxes represents a fee for service received, but data limitations preclude determination of the fee-for-service element.

⁸ METRs are available for 32 manufacturing industries. Research and development (R&D) assets are not included in the comparison.

⁹ Footloose industries in the service sector include call centres and a number of other business services, but these industries account for a very small share of both Canada's inbound FDI and service sector output.

In these 36 countries, statutory tax rates and manufacturing METRs are correlated, but in most countries the statutory rate overstates the overall tax burden on investment as deductions and credits reduce the effective tax rate (Table 3 and Chart 1). In addition, there is substantially less variance across countries in the statutory rate than in the METR.

The countries examined have been organized into three groups for comparison purposes: G7 countries, smaller developed countries and emerging and transition economies.¹⁰ On average, the G7 countries impose the highest taxes on business investment, with both the statutory tax rate and the METR well above the corresponding averages for the other groups (Table 3). It is sometimes argued that large economies can sustain relatively high business tax rates because capital is more efficient due to agglomeration effects, so governments are able to capture some of the benefits through higher taxes.¹¹ Smaller economies, in contrast, may be using tax policy to offset locational disadvantages as well as the perception that investments in these countries are riskier due to exchange rate fluctuations and the potential for suffering reduced access to export markets. This pattern can be seen more clearly in a comparison of the typical country in each group, as measured by the median,¹² which shows successively lower METRs for G7 countries, smaller open economies and emerging economies.



¹⁰ Countries are grouped according to per capita gross national income (GNI) in 2004 adjusted for purchasing power parity. Smaller developed countries have per capita GNI of at least \$22,000 while emerging and transition economies have per capita GNI below this threshold. Source: The World Bank (2006).

¹¹ See, for example, Haufler, A., and I. Wooton, "Country Size and Tax Competition for Foreign Direct Investment," *Journal of Public Economics*, vol. 71 (1999), pp. 121-139.

¹² The median METR for emerging and transition economies is substantially lower than the mean or average METR because of a particularly high METR in China.



Table 3

Summary Statistics—METR and Corporate Statutory Tax Rate (STR)

	METR (%)			Corporate STR (%)			METR/STR correlation
	Median	Mean	Coefficient of variation	Median	Mean	Coefficient of variation	
All countries	21.1	21.1	49.4	27.8	27.1	25.7	0.74
G7 members	30.0	30.7	20.1	36.1	35.9	11.4	0.69
Smaller developed economies ¹	21.1	19.7	38.2	25.0	25.1	23.2	0.67
Emerging and transition economies	15.9	24.2	55.9	24.5	25.2	23.1	0.77
Canada		27.0			30.5		

¹ Statistics exclude Singapore and Belgium. Their low METRs significantly alter the results, lowering the METR/STR correlation to 0.2 for smaller developed economies.

The ability to attract and retain internationally mobile capital is not, however, the only reason to be concerned about the competitiveness of Canada's tax system. If Canada imposes a relatively high tax burden on business investment, the amount of capital per worker in firms operating in Canada, whether serving the domestic market or selling overseas, is likely to be lower than in other countries, which would put downward pressure on relative levels of productivity and wages in Canada. A comparison of economy-wide METRs on investment is more appropriate to address this issue.

METRs for the overall economy are generally higher than for the manufacturing sector, and the international rankings change slightly. Canada's ranking deteriorates from ninth to seventh highest when METRs for the overall economy are compared. While only eight countries in the comparison group have explicit tax preferences for manufacturing, such as lower tax rates, most countries provide depreciation allowances for machinery and equipment that are generous relative to other assets. The manufacturing sector benefits disproportionately from this policy approach because it makes particularly intensive use of machinery and equipment (see Annex 2 for additional details).

Comparison With Other G7 Countries

Canada has the third lowest manufacturing METR among the G7 countries, although the gap with the US and France is not large. Italy has the least onerous business tax regime, undercutting the Canadian METR by 4½ percentage points (Chart 2). The decomposition of the METR shown in Chart 2 reveals that a low statutory income tax rate is the main reason for Canada's favourable ranking. Canada has the second lowest statutory rate in the G7, only half a percentage point higher than in the UK.

In contrast, the capital cost allowance (CCA) regime has only a small adverse impact on Canada's tax competitiveness in the G7. CCA recognizes for tax purposes the annual expense resulting from the depreciation of a capital asset over its useful life. The positive values shown in Chart 2 for "economic depreciation less CCA" therefore indicate that in all G7 countries, CCA is not adequate to compensate for economic depreciation.¹³ However, the impact on the METR of a given gap between economic depreciation and CCA rates is affected by the statutory rate of income tax: inadequate recognition of economic depreciation increases taxable income, so the impact on the METR rises along with the statutory rate. Removing the statutory rate from the calculation therefore isolates the *relative* impact of CCA regimes on METRs. This is shown in Panel B of Chart 2, which demonstrates that most G7 countries have similar CCA regimes. The exceptions are Italy, which comes closest to offering adequate recognition of economic depreciation of assets, and Japan, which has one of the least generous CCA provisions among the 36 countries examined.

In contrast to the CCA regime, inventory accounting methods slightly reduce Canada's advantage relative to other G7 countries. In an inflationary environment, firms realize a gain on inventories because there is usually a lag between when goods are produced and when they are sold. Firms are required to bring this gain into taxable income under first-in first-out (FIFO) inventory accounting, but not under the last-in, first-out (LIFO) inventory accounting convention, which effectively values inventories in line with current production costs.¹⁴ This difference in taxable income results in a higher METR under FIFO accounting than under LIFO. In the G7, Canada, the UK and France do not allow LIFO inventory accounting for tax purposes.

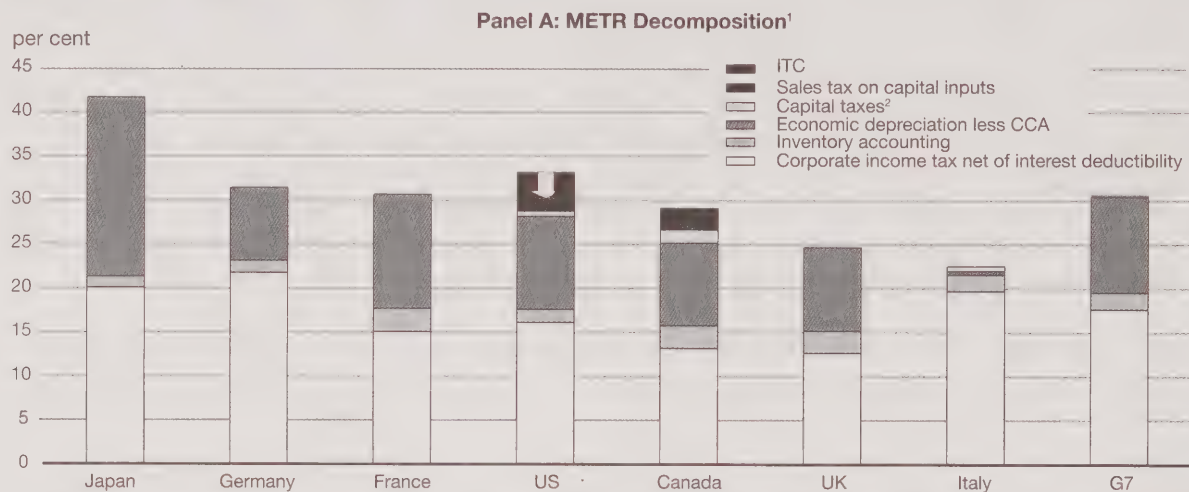
Germany and Italy impose restrictions on interest deductibility that put substantial upward pressure on their METRs. In Germany, sub-national governments allow only 50 per cent of interest expense to be deducted from taxable income, thereby raising the national METR more than 5 percentage points. Sub-national governments in Italy do not allow any deduction for interest on debt issued to finance capital investment, raising the national METR just over 3 percentage points. Japanese firms are not allowed to deduct interest payments on debt issued to finance the purchase of land, but this has a negligible impact on the METR given the small share of land in the capital structure of firms.

¹³ Inflation affects the adequacy of CCA. Economic depreciation is calculated using the replacement cost of the asset while CCA is calculated using the original purchase price of the asset. As a result, even if the CCA rate is equal to the economic depreciation rate, in the presence of inflation it will not fully recognize depreciation expense for tax purposes, which will put upward pressure on the METR. In Canada, the declining real value of CCA accounts for almost half of the impact shown in Panel A of Chart 2, adding about 4 percentage points to the METR. See Annex 3 for a more detailed discussion of capital cost allowances and inflation.

¹⁴ Note that inventory accounting methods put upward pressure on the METR even in those countries that allow LIFO accounting since many firms still choose to use FIFO inventory accounting. Countries allowing the use of LIFO accounting for tax purposes require businesses to adopt LIFO for financial reporting as well. Since LIFO accounting produces lower earnings and may result in higher bookkeeping costs, some firms prefer to use FIFO in both tax and financial accounts. US survey information suggests that the share of firms using LIFO accounting for some or all of their inventories is around 50 per cent. (Source: American Institute of Certified Public Accountants, *Accounting Trends and Techniques*, 58th edition (2004), p.177). In our METR calculations, this share is assumed to apply to all countries that allow LIFO except Mexico, where there are no restrictions on the use of LIFO.



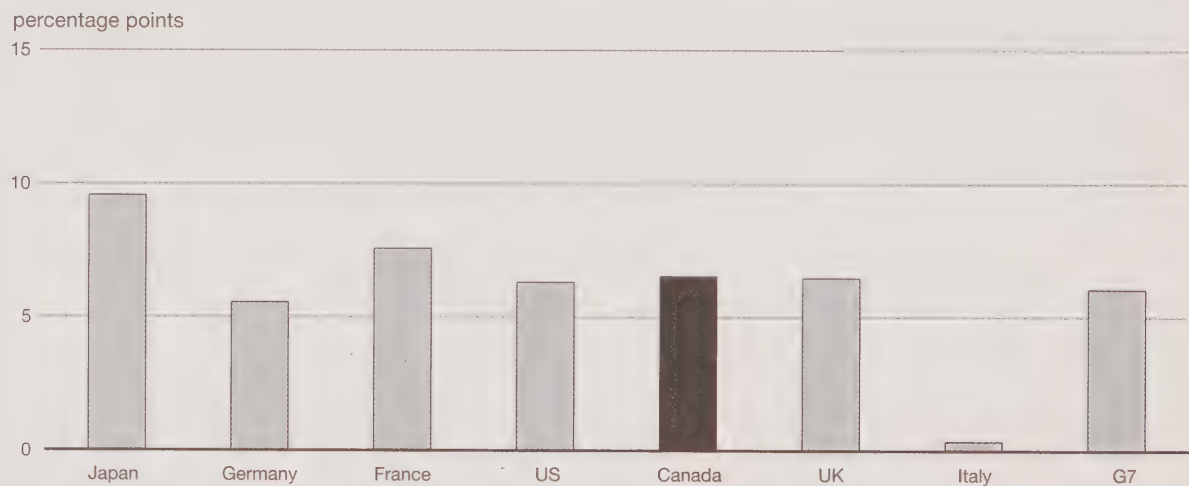
Chart 2
METR Comparison—G7
(Manufacturing Sector, 2011)



¹ Represents the contribution to the METR of each tax item. Elimination of sales or capital taxes may not reduce the METR by the amount shown because of interactions with the rest of the tax system.

² Includes stamp duties in Italy.

Panel B: Economic Depreciation Rate Less CCA Rate¹



¹ The comparison in Panel B isolates the relative impacts of CCA regimes on METRs by removing the statutory tax rates embedded in the net value of the CCA deduction presented in Panel A. Panel B presents the percentage-point difference between the average economic depreciation rates and the average CCA rates adjusted for the effect of inflation and converted to declining-balance equivalents when appropriate.

Canada and the US are the only G7 countries that levy capital taxes.¹⁵ By 2011, capital taxes will be levied in only four Canadian provinces—Ontario,¹⁶ Quebec, Nova Scotia and Manitoba. These capital taxes increase the national METR by 1½ percentage points. In the US, about a third of the states now levy capital taxes and no changes have been announced. Similarly, in the G7, only Canadian provinces and US states impose retail sales taxes that apply to capital goods. In Canada, the five provinces that levy retail sales taxes generally offer some exemptions for capital inputs, particularly for machinery and equipment used in manufacturing, that substantially reduce the effective sales tax rate on capital goods in the manufacturing sector. As a result, retail sales taxes raise the Canadian METR by approximately 2½ percentage points, compared to the 9 percentage points that would prevail in the absence of any exemptions. In the absence of provincial taxes on both capital and retail sales, the Canadian manufacturing METR would be the second lowest in the G7, just half a percentage point higher than in Italy.

In the US, state governments also offer exemptions that reduce the impact of retail sales taxes on the price of capital goods. Many US states levying retail sales taxes provide investment tax credits (ITCs) that further attenuate the impact of retail sales taxes on the METR, as can be seen from the downward arrow in Chart 2.¹⁷ While several of the smaller Canadian provinces offer ITCs, the largest effect comes from the federal credit for investment in the Atlantic provinces.

Comparison With Smaller Developed Economies

A comparison of the tax treatment of business investment in other smaller developed economies is of interest not only because some are direct competitors with Canada for FDI, but also because the comparison provides a perspective on alternative corporate tax strategies undertaken by countries that have some similarities with Canada.

Canada taxes manufacturing investment at the second highest rate among the 17 countries that are included in the comparison (Chart 3). All of the key elements of the tax system contribute to Canada's relatively poor performance in this group, with the biggest impacts coming from the statutory tax rate, sales taxes on capital inputs and capital taxes. Canada's statutory tax rate is the third highest in the group, behind Belgium and New Zealand.

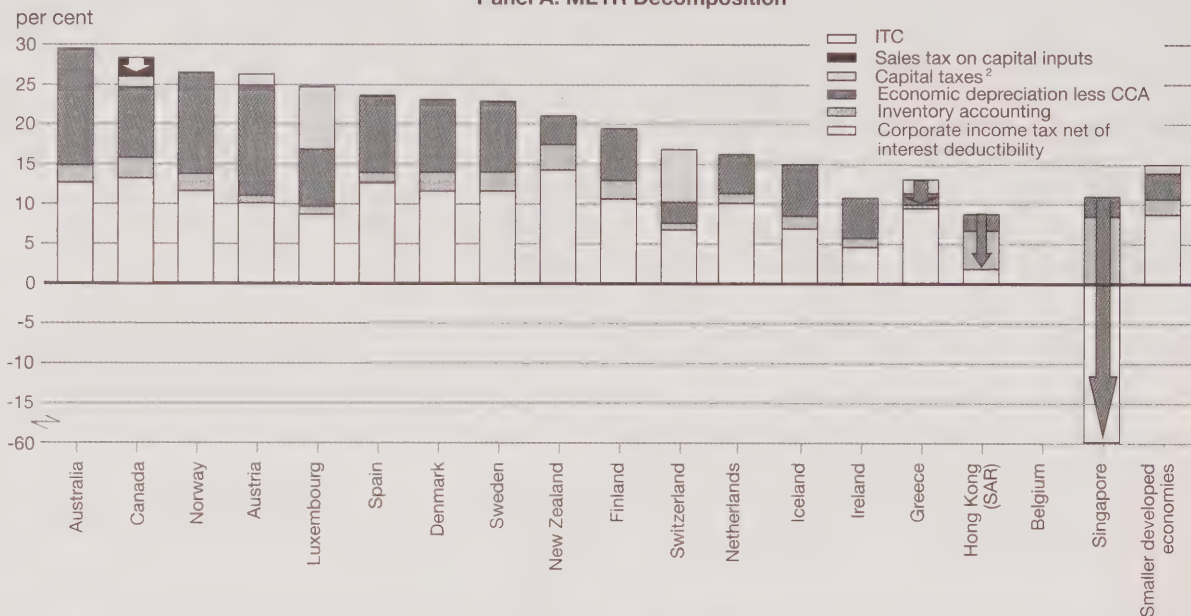
¹⁵ Stamp taxes, which are one-time charges on additions to equity or debt by a firm, are levied on equity in Italy but have a negligible impact on the METR.

¹⁶ Ontario has tabled legislation to eliminate capital taxes by 2012, and will eliminate them by 2010 if the province's fiscal situation permits.

¹⁷ A retail sales tax and an ITC set at the same rate have no net impact on the METR since the retail sales tax increases the price of a capital good while an ITC lowers it.

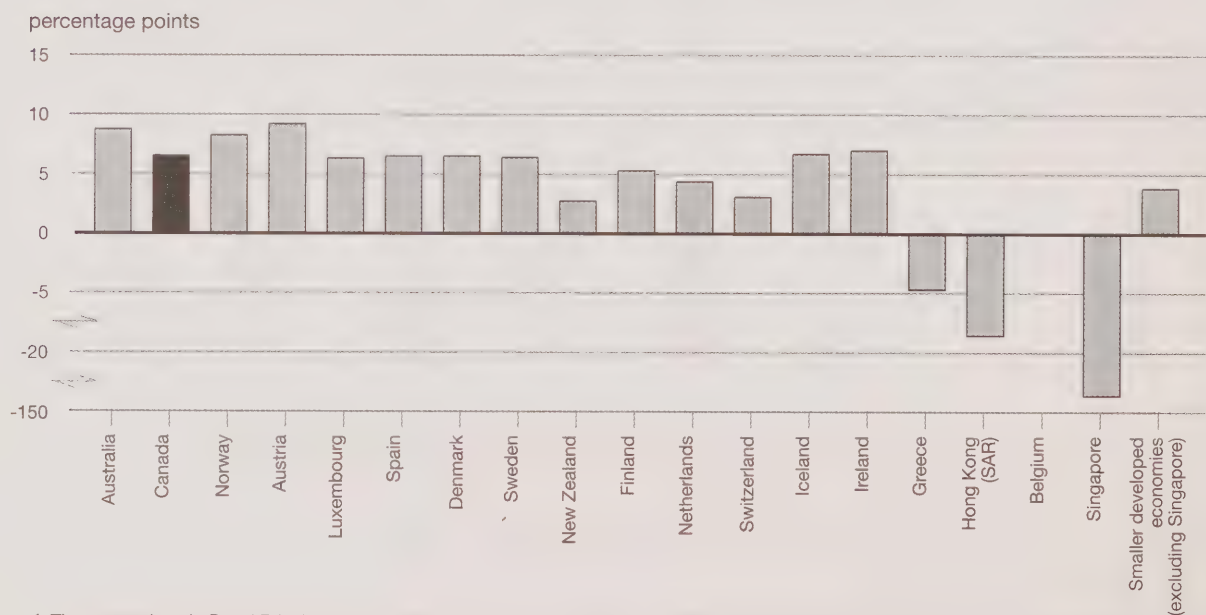


Chart 3

**METR Comparison—Smaller Developed Economies
(Manufacturing Sector, 2011)****Panel A: METR Decomposition¹**

¹ Represents the contribution to the METR of each tax item. Elimination of sales or capital taxes may not reduce the METR by the amount shown because of interactions with the rest of the tax system.

² Includes stamp duties in Austria, Spain, Greece and Switzerland.

Panel B: Economic Depreciation Rate Less CCA Rate¹

¹ The comparison in Panel B isolates the relative impacts of CCA regimes on METRs by removing the statutory tax rates embedded in the net value of the CCA deduction presented in Panel A. Panel B presents the percentage-point difference between the average economic depreciation rates and the average CCA rates adjusted for the effect of inflation and converted to declining-balance equivalents when appropriate.

No countries in the comparison group impose sales taxes on capital inputs and only Luxembourg and Switzerland (at the canton level) levy capital taxes.¹⁸ In the absence of provincial sales and capital taxes, Canada's METR on investment in the manufacturing sector would be the sixth highest in the group of smaller developed economies. Canada's CCA regime is less generous than the average (Chart 3, Panel B), largely due to a relatively low CCA rate for manufacturing plants (Chart A3-1 in Annex 3). Increasing the CCA rate on manufacturing plants to align it with economic depreciation would trim approximately 4 percentage points from the Canadian METR.

The CCA regimes add an unusually large amount to the METRs in Austria, Australia and Norway. Firms in Austria are able to specify the service life of assets for tax purposes but must use straight-line depreciation; this restriction severely reduces the value of deductions for depreciation compared to the declining-balance method, which allows greater deductions early in the life of the asset.¹⁹ As a result, Austria has the third most restrictive CCA regime among the 36 countries examined. Firms in Australia are allowed to use their own service life estimates for machinery and equipment, but most choose those specified by the Commissioner of Taxation, which are reasonably well aligned with useful lives. The specification of CCA rates, however, leaves firms with a substantial undepreciated balance at the end of the useful life of an asset.

The CCA regimes in Singapore, Hong Kong (SAR) and Greece are more than adequate to cover economic depreciation, as indicated by the descending arrows in Chart 3. In Singapore, tax depreciation exceeds economic depreciation by such a large margin that the overall manufacturing METR is substantially negative—the tax system is providing a large subsidy to investment.

The METR is zero in Belgium, allowing, as of 2006, a deduction for a notional return on equity in order to provide similar tax treatment for debt and equity financing.²⁰ This new measure reduces the METR by almost 20 percentage points.

Comparison With Emerging and Transition Economies

The typical emerging economy²¹ has the lowest METR and, by a small margin, the lowest statutory rate in the three comparison groups (Table 3). The Canadian METR is higher than in all countries in this group except China, Brazil and India (Chart 4, Panel A), while the Canadian statutory rate is the third highest, behind Brazil and India.

¹⁸ Stamp duties are levied in Switzerland, adding 3 percentage points to the METR; in Austria and Greece, raising the METR about 1½ percentage points; and in Spain, with a negligible impact on the METR.

¹⁹ Under the straight-line method, the annual depreciation expense is equal over the life of the asset. Under the declining-balance method, the annual deduction for depreciation is a constant fraction of the remaining value of the asset. As a result, the annual depreciation deduction is largest in the early years of the asset's life under the declining-balance method.

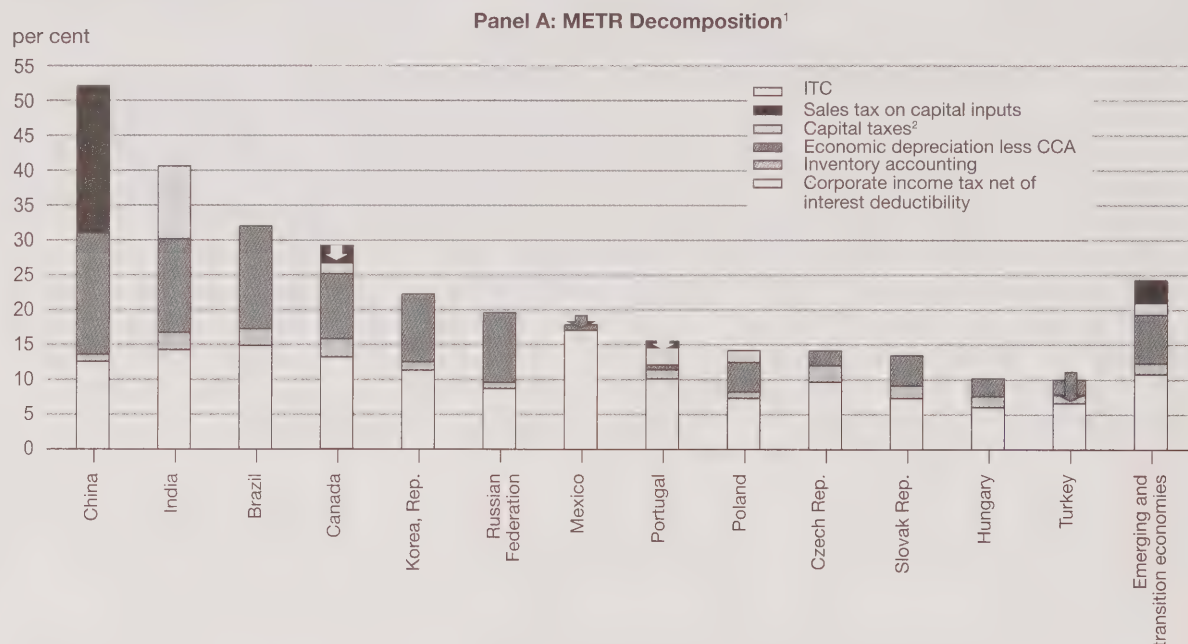
²⁰ The measure allows a deduction based on the risk-free return to equity determined by applying a risk-free interest rate to the book value of equity. Since the METR is developed assuming investments earn this minimum rate of return, in the absence of the capital taxes, stamp duties or sales taxes on investment goods, the deduction reduces the income tax METR to zero. Note that returns above this minimum rate are taxed at the statutory rate of incomes tax.

²¹ As measured by the median.



Chart 4

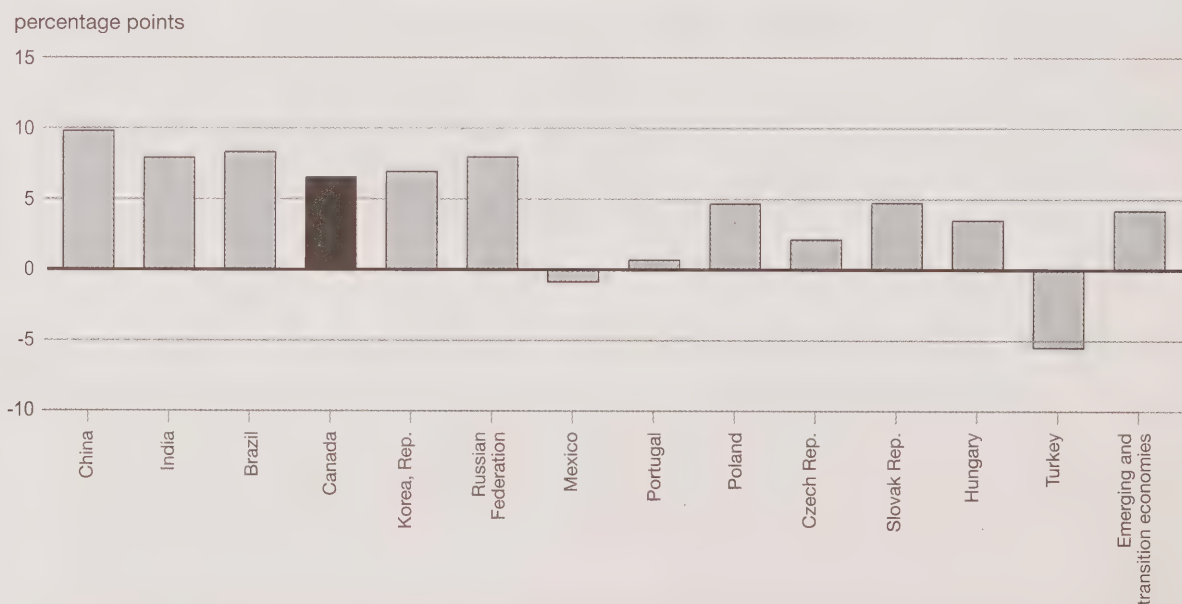
**METR Comparison—Emerging and Transition Economies
(Manufacturing Sector, 2011)**



¹ Represents the contribution to the METR of each tax item. Elimination of sales or capital taxes may not reduce the METR by the amount shown because of interactions with the rest of the tax system.

² Includes stamp duties in Portugal and Poland.

Panel B: Economic Depreciation Rate Less CCA Rate¹



¹ The comparison in Panel B isolates the relative impacts of CCA regimes on METRs by removing the statutory tax rates embedded in the net value of the CCA deduction presented in Panel A. Panel B presents the percentage-point difference between the average economic depreciation rates and the average CCA rates adjusted for the effect of inflation and converted to declining-balance equivalents when appropriate.

Among these emerging economies, only India imposes a capital tax²² and only China imposes sales taxes on capital goods. Portugal is the only country in the comparison group that offers an investment tax credit. A 5 per cent investment tax credit is available on most investment in machinery and equipment exceeding the average investment of the previous two years, which reduces the METR by 1 percentage point, as indicated by the descending arrow in Panel A of Chart 4.

China has, by a substantial margin, the highest METR of all 36 countries, reflecting a restrictive CCA regime (Chart 4, Panel B) as well as the impact of sales taxes on capital goods. China has a value-added tax (VAT), but does not allow input tax credits for investment in machinery and equipment, which adds almost 21 percentage points to the METR.²³ Brazil's tax system is characterized by a relatively high statutory tax rate and a relatively restrictive CCA regime, particularly for machinery and equipment. Straight-line depreciation must be used for all assets, and the useful lives for machinery and equipment are longer than in most other countries in the comparison group. India also has a relatively high statutory rate. Its CCA regime is also more restrictive than the average for the group of emerging economies, largely due to the 2005 budget, which scaled back the CCA rate for machinery and equipment, from 25 per cent straight-line to 15 per cent.

Mexico, which competes with Canada for inbound FDI, is the only country of the 36 to fully index its tax system for inflation.²⁴ Relatively high straight-line CCA rates are available for machinery and equipment, which, when combined with inflation adjustment, results in a CCA regime that comes close to compensating for economic depreciation. Turkey has the lowest METR in the group, due to a relatively low statutory tax rate and depreciation allowances that more than compensate for economic depreciation.

²² Stamp duties are levied in Portugal and Poland, raising the METR 3.1 and 1.6 percentage points respectively.

²³ China has expressed interest in implementing a full VAT system, but has no specific plans to do so. The government has been experimenting with such a system in three northern provinces since 1999 where tax credits are offered to foreign enterprises, which account for less than 1 per cent of total investment. The government recently extended the VAT credit program to the central-western region but limited the measure to the purchase of domestically made machinery and equipment, which again accounts for a small share of total investment.

²⁴ Portugal allows depreciation allowances to be revalued to account for inflation, but only 60 per cent of the revaluation is deductible. As explained in Annex 3, this restriction provides an offset to the effects of inflation on interest deductibility.



Conclusion

This paper compares manufacturing METRs in Canada, the US and 34 other countries in order to assess Canada's ability to attract and retain the substantial volume of internationally mobile capital. The focus is on manufacturing because it represents a large share of Canada's inbound foreign direct investment and because manufacturing investment is particularly sensitive to international differences in rates of return.

Federal business tax reductions announced in 2006, along with provincial initiatives, will give Canada an overall tax advantage in manufacturing over the US, which is the major source of inbound foreign direct investment and the most important destination for Canada's outbound investment. Canada will also have an advantage over other G7 countries, except the UK and Italy. But Canada is competing against many other countries for internationally mobile capital, and even with the measures announced in 2006 the tax burden on investment in manufacturing is higher in Canada than in almost all other smaller developed economies. Provincial sales tax reform and elimination of capital taxes would substantially improve Canada's tax competitiveness.

The ability to attract and retain internationally mobile capital is not, however, the only reason to be concerned about the competitiveness of Canada's tax system. A relatively high tax burden on business investment will reduce the amount of capital per worker in firms operating in Canada, and this will put downward pressure on relative levels of productivity and wages in Canada. This issue is more appropriately addressed through an international comparison of economy-wide METRs, which also indicates that Canada places a greater tax burden on business investment than most other countries.

Annex 1

Impact of Country-Specific Inflation Rates

	2% Inflation		Country-Specific Inflation			Difference in rank
	METR (%)	Rank	Rate (%)	METR (%)	Rank	
China	52.2	1	1.0	51.3	1	0
Japan	41.7	2	0.3	36.9	3	1
India	40.6	3	6.7	45.8	2	-1
Brazil	32.0	4	3.8	36.1	4	0
Germany	31.4	5	1.7	30.7	7	2
France	30.7	6	1.9	30.4	8	2
US	30.0	7	4.1	32.3	6	-1
Australia	29.5	8	4.0	33.0	5	-3
Canada	27.0	9	2.0	27.0	9	0
Norway	26.5	10	2.2	26.8	10	0
Austria	26.3	11	1.5	25.4	13	2
UK	24.7	13	2.4	25.5	12	-1
Luxembourg	24.7	12	2.9	25.4	14	2
Spain	23.6	14	4.0	25.7	11	-3
Denmark	23.1	15	2.0	23.1	18	3
Sweden	22.9	16	1.7	22.2	20	4
Italy	22.5	17	2.2	22.8	19	2
Korea, Rep.	22.3	18	2.9	23.2	17	-1
New Zealand	21.1	19	4.0	24.7	15	-4
Russian Federation	19.6	20	9.7	24.4	16	-4
Finland	19.5	21	1.9	19.3	21	0
Mexico	17.1	22	3.1	16.8	24	2
Switzerland	16.8	23	1.4	16.5	25	2
Netherlands	16.3	24	1.4	15.6	26	2
Iceland	15.0	25	8.6	17.9	22	-3
Portugal	14.6	26	2.3	14.4	28	2
Poland	14.2	27	1.1	13.6	29	2
Czech Rep.	14.1	28	2.9	15.3	27	-1
Slovak Rep.	13.5	29	5.0	17.2	23	-6
Ireland	10.8	30	4.2	12.9	30	0
Hungary	10.2	31	3.0	10.7	31	0
Greece	9.5	32	3.5	9.7	32	0
Turkey	6.6	33	10.3	9.5	33	0
Hong Kong (SAR)	1.9	34	2.3	1.8	34	0
Belgium	0.0	35	1.6	0.0	35	0
Singapore	-59.8	36	1.1	-60.9	36	0



Annex 2

Comparison of Manufacturing and Economy-Wide METRs

The METR for manufacturing in most countries is lower than in other sectors (Table A2-1). This is occasionally the result of tax provisions targeting the manufacturing sector, but in most cases it is the result of preferential treatment of investment in machinery and equipment (M&E). The manufacturing sector benefits disproportionately from this policy approach because it makes particularly intensive use of M&E. The international rankings are not very sensitive to comparing economy-wide METRs instead of manufacturing METRs: only three countries experience a change in rank of four positions or more. Canada's ranking deteriorates from ninth highest to seventh highest when economy-wide METRs are compared.

The US is the only country to have a special low tax rate for manufacturing income at the national level. A federal corporate income deduction for production activities of up to 9 per cent will be available by 2010, and so far 27 states have followed the federal government in granting the deduction. In Canada, there used to be a lower statutory tax rate for manufacturing but now the federal statutory rate is equal for all businesses. A number of provinces such as Ontario have retained a preferential rate on manufacturing income. In no other countries do sub-national governments vary income tax rates by sector.

In addition to special income tax rates, Canada and the United States provide investment tax credits and exemptions from retail sales taxes that target the manufacturing sector. For example, all service sector industries are excluded from the Atlantic investment tax credit. The only other country providing an investment tax credit is Portugal, which is available for incremental investment in M&E.

Eight countries vary capital cost allowance (CCA) rates for assets by industry of use, but only Hong Kong (SAR) targets the manufacturing sector. In recognition of higher economic depreciation, most countries have higher CCA rates for manufacturing plants than for other types of buildings. But only seven of these countries give preferential treatment to manufacturing plants as measured by the gap between economic depreciation and CCA rates for manufacturing plants compared to other buildings. In contrast, most countries give preferential treatment to M&E, wherever it is used, by aligning CCA rates more closely with useful lives for M&E than for structures. Countries adopting this approach have lower manufacturing METRs than in other sectors because M&E makes up over 60 per cent of depreciable capital assets in the manufacturing sector compared to about 40 per cent in other sectors. Italy allows firms to deduct two times the normal depreciation allowance for the first three years. This approach provides a bigger benefit to assets with a relatively short useful life. Since these assets are used disproportionately in the manufacturing sector, the METR is lower than in other sectors.

The METR for manufacturing is higher than the economy-wide METR in 10 of the 36 countries. However, the difference is significant only for the Slovak Republic, where the METR for manufacturing is 20 per cent higher than that for all sectors as a result of more generous CCA for commercial buildings and for some types of M&E used in the service sector, such as computers.

Table A2-1

International METRs in 2011: Manufacturing—All-Sector Comparison

	Manufacturing (%)	Rank	All sectors (%)	Rank	Difference (%-pts)	Difference in rank
China	52.2	1	51.2	1	-1.0	0
Japan ¹	41.7	2	43.4	3	1.7	1
India ³	40.6	3	43.9	2	3.3	-1
Brazil	32.0	4	31.9	6	-0.1	2
Germany ¹	31.4	5	32.7	5	1.3	0
France	30.7	6	29.6	8	-1.1	2
US ^{1,2}	30.0	7	34.4	4	4.4	-3
Australia ¹	29.5	8	29.0	10	-0.4	2
Canada ²	27.0	9	31.1	7	4.1	-2
Norway	26.5	10	27.4	11	0.9	1
Austria	26.3	11	25.7	13	-0.6	2
Luxembourg	24.7	12	24.5	15	-0.2	3
UK ³	24.7	13	29.3	9	4.6	-4
Spain	23.6	14	24.6	14	1.0	0
Denmark	23.1	15	22.1	19	-1.0	4
Sweden	22.9	16	23.6	16	0.7	0
Italy	22.5	17	26.5	12	4.0	-5
Korea, Rep. ¹	22.3	18	22.8	17	0.5	-1
New Zealand ^{1,3}	21.1	19	22.6	18	1.5	-1
Russian Federation	19.6	20	18.7	21	-0.9	1
Finland	19.5	21	20.3	20	0.8	-1
Mexico ¹	17.1	22	16.7	25	-0.4	3
Switzerland	16.8	23	17.9	24	1.1	1
Netherlands	16.3	24	18.7	22	2.5	2
Iceland	15.0	25	16.3	27	1.3	2
Portugal ³	14.6	26	18.7	23	4.1	-3
Poland	14.2	27	16.3	26	2.1	-1
Czech Rep.	14.1	28	14.7	28	0.5	0
Slovak Rep.	13.5	29	11.2	32	-2.3	3
Ireland ³	10.8	30	12.6	29	1.8	-1
Hungary	10.2	31	11.2	31	1.0	0
Greece	9.5	32	12.0	30	2.5	-2
Turkey	6.6	33	8.0	33	1.3	0
Hong Kong (SAR) ^{3,4}	1.9	34	7.4	34	5.5	0
Belgium	0	35	0	35	0	0
Singapore ³	-59.8	36	-23.6	36	36.2	0

¹ CCA rates vary by industry of asset use, but manufacturing is not targeted.

² Corporate income tax rate, retail sales taxes and investment tax credits vary by industry.

³ Higher CCA rates for manufacturing plants than for other buildings.

⁴ Accelerated CCA is available for all tangible assets used in manufacturing.

Annex 3

Capital Cost Allowances and Inflation

In most countries examined in this study, capital cost allowances (CCA) do not adequately recognize for tax purposes the expense resulting from the depreciation of a capital asset over its useful life. CCA rates are applied to the book value of assets with no adjustment for increases in prices. With inflation, CCA rates will therefore be inadequate even if they are set equal to economic depreciation rates, which will put upward pressure on the METR. Simply adjusting CCA for inflation would, however, leave intact another inflation-related bias that reduces the METR on fixed capital investment.

Firms finance capital acquisitions in part by issuing debt, and the interest paid is a tax-deductible expense. In an inflationary environment, the interest expense consists of a payment to compensate the lender for the declining real value of the principal amount (the “inflation premium”) and a payment to compensate the lender for use of the principal. The inflation premium is effectively an early repayment of principal, which is not normally a deductible expense. Allowing a deduction for the inflation premium therefore puts downward pressure on the METR, cushioning the impact of inflation on the real value of CCA. The offset is incomplete since on average in Canada capital acquisitions are financed with 40 per cent debt and 60 per cent equity.

In a fully indexed tax system, the CCA system would be adjusted to reflect inflation, and only the real value of interest payments would be a deductible expense, along with a number of other adjustments.²⁵ This result could be approximated by setting CCA rates that compensate exactly for economic depreciation less the benefit from nominal interest deductibility.²⁶ This approach to calculating a neutral CCA rate is presented in Table A3-1.

Table A3-1

Calculation of a “Neutral” CCA Rate

	Economic depreciation rate		Penalty for nominal CCA		Inflation-adjusted CCA rate		Benefit from nominal interest deductibility		Neutral CCA rate
Manufacturing plants	10.0%	+	5.4%	=	15.4%	-	2.2%	=	13.2%
Automated manufacturing and processing equipment	21.0%	+	10.0%	=	31.0%	-	4.8%	=	26.2%

Note: Calculations assume a 2% inflation rate and 40% debt/asset ratio. Under 100% debt financing, the neutral CCA rate would be 3 percentage points lower for manufacturing plants and 6.5 percentage points lower for machinery and equipment.

As pointed out in the text, CCA rates in most countries are inadequate to compensate for depreciation expense measured in real terms. This shortfall is illustrated in Chart A3-1 for manufacturing plants, which shows that CCA rates in most countries, including Canada, are in fact below the economic depreciation rate. CCA rates are above the neutral rate in 11 countries.

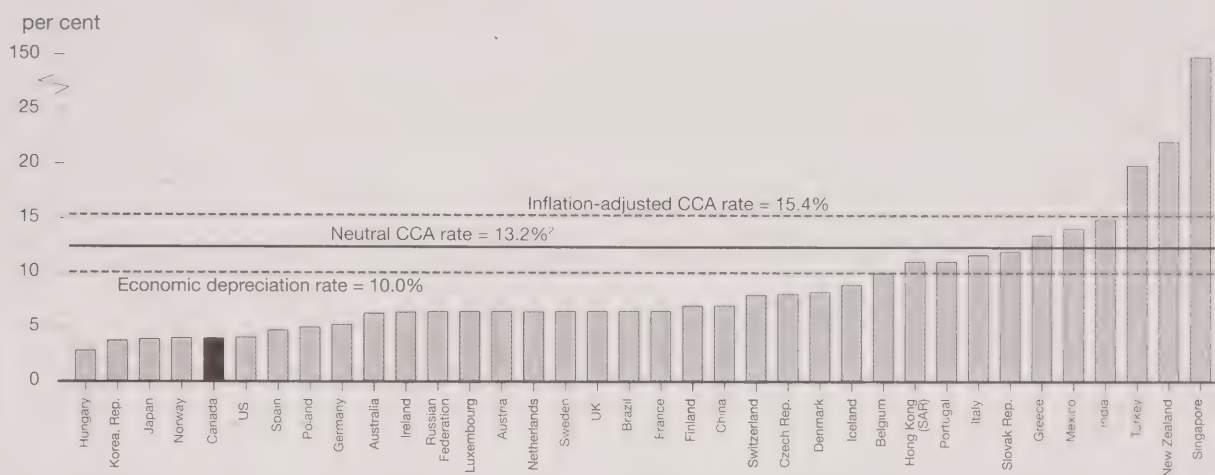
²⁵ The most important of these other adjustments is to allow firms to use last-in, first-out inventory accounting, which prevents inflation-related gains on inventories from being included in taxable income.

²⁶ For a more detailed explanation see Chen, Duanjie, and Jack Mintz, “Canadian Pipeline Construction Cost Considerations For Capital Cost Allowances,” (2005).

CCA is substantially more generous for automated manufacturing and processing equipment, which accounts for about a third of machinery and equipment used in manufacturing, more than compensating for real depreciation in about a third of the countries studied. (Chart A3-2). In this case CCA exceeds the neutral rate in half of the countries, including Canada.

Chart A3-1

CCA Rate¹ for Manufacturing Plants

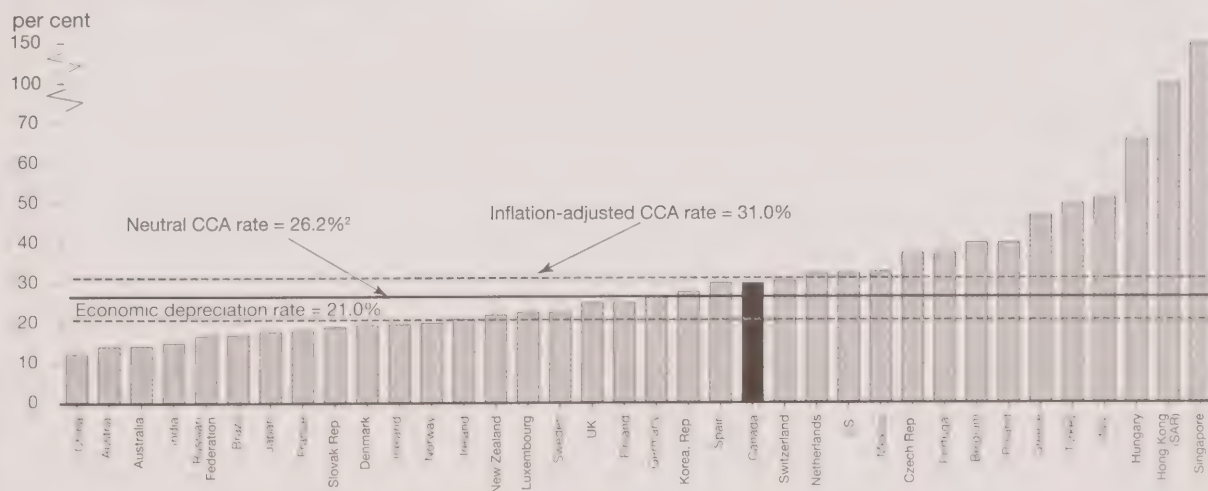


¹ In order to have countries on a comparable base, equivalent declining-balance rates were calculated for CCA regimes using linear or other types of schedules.

² The neutral CCA rate offsets economic depreciation and the penalty from using a nominal instead of a real CCA system less the benefit from deducting nominal instead of real interest payments.

Chart A3-2

CCA Rate¹ for Automated Manufacturing and Processing Equipment



¹ In order to have countries on a comparable base, equivalent declining-balance rates were calculated for CCA regimes using linear or other types of schedules.

² The neutral CCA rate offsets economic depreciation and the penalty from using a nominal instead of a real CCA system less the benefit from deducting nominal instead of real interest payments.

INVESTING IN POST-SECONDARY EDUCATION:
THE IMPACT OF THE INCOME TAX SYSTEM



Introduction

The decision to undertake post-secondary education (PSE) is one of the most important that most Canadians make. That choice is influenced by many factors, including personal aptitude and preferences, cost implications, and its impact on financial prospects. Society also has a stake in the decision to invest in higher education since a well-educated population is more productive, innovative and adaptable as well as more engaged in public issues. As a result, the Government supports education through a variety of spending programs and tax measures, raising the private return to investment in PSE in order to encourage greater participation.

This paper examines the impact of taxes on decisions regarding participation in post-secondary education. In particular, it evaluates how the income tax system's cost recognition features, such as the education, tuition, textbook, and student loan interest tax credits, reflect the cost of a post-secondary education to students and their families. The document also examines how these tax support measures compare to the additional taxes that will be generated from higher incomes resulting from that investment in education.

The paper begins by setting the evaluation context, describing:

- how an individual's decision to embark on higher education can be considered an investment;
- why governments get involved in that decision; and
- the effective tax rate framework, which is a commonly used tool for analyzing how the tax system affects the financial return to an investment.

It proceeds by examining the costs typically incurred by post-secondary students, and assesses how well those costs are recognized by the income tax system.

The analysis concludes that the private costs incurred by most post-secondary students when they invest in education are more than adequately recognized by the income tax system. Effective tax rates on investments in higher education are nevertheless found to be positive, indicating that, even with the tax support measures, the tax system makes investment in higher education less attractive. These positive effective tax rates arise from a fundamental feature of the Canadian income tax system—graduated rates, which cause the incremental earnings of post-secondary graduates to be taxed at a higher marginal income tax rate.

The disincentive effects created by the tax system must, however, be assessed in the context of the overall level of support given to post-secondary education and how it can best be delivered. Government spending is strongly supportive of higher education, substantially reducing private costs and more than offsetting the small amount of net additional tax arising from the tax system. Taken together, the tax and spending measures provide a substantial incentive to undertake post secondary education, while maintaining a degree of progressivity in the tax system.



Education as an Investment

Taxes affect many decisions, and evaluation of the impact of taxes is consequently very important. This is particularly true when it comes to investment decisions.

Investments can be broadly defined to include all activities where costs are incurred today with the expectation of receiving benefits in the future. Education and training decisions clearly fit within this definition. When individuals decide to go to college or university, or to undertake other types of training, they must both pay the out-of-pocket costs of their education and give up the income they might have obtained if they had decided to enter the workforce immediately instead of going to school. Individuals who opt for additional education opportunities do so for a variety of reasons, but an important one is to improve their economic prospects once their education is complete. They recognize that additional education will increase their chances of obtaining steadier employment in a higher-paying line of work.

Education is thus a classic investment, since it involves incurring costs now in order to reap a reward later. A term often used in connection with education—human capital—draws out this education-investment link. Just as a business invests in physical capital by building a factory, buying machinery, or discovering and developing a mineral deposit, a student or apprentice invests in human capital by pursuing education or training opportunities (see Box 1).

Government Involvement in the Investment-in-Education Decision

Students receive a large financial return from investing in post-secondary education, and presumably would be motivated to invest in education without extra inducement from the Government. Nevertheless, governments have traditionally supported students and post-secondary institutions through both direct spending programs and tax measures. One justification for this involvement is that the benefits of higher education flow beyond the student and spill over to society at large.¹ Reviews of the literature suggest that these spillover effects, or externalities, result from a number of factors.

Highly educated employees are on average more productive. Their extra productivity often exceeds the additional remuneration they command. Employers may therefore earn higher profits if their employees are more educated. Co-workers may also be more productive and more generously remunerated in the presence of educated colleagues. Employers and fellow employees therefore reap some of the payoff of a student's decision to get an education.

New ideas that benefit businesses and society at large often come from well-educated people. A more educated workforce may also adapt more easily to changes in technology. These innovation channels can also generate externalities from individual decisions to invest in higher education.

People with more education may make less use of social programs, to the benefit of their fellow citizens, and contribute more in terms of tax levels. Persons with higher education generally have more stable patterns of employment and are consequently less prone to require government income and social support. With their higher incomes, they pay more taxes.

¹ See Davies, Jim, "Empirical Evidence on Human Capital Externalities," Department of Finance Working Paper 2003-11 (2003).

Box 1: Education: Earnings Premia, Costs and Rate of Return

Canadians with post-secondary education earn considerably more on average than those who complete high school only. "Earnings premia":

- are higher for university than for college or trades training;
- are generally higher for women than for men; and
- were on an upward trend between 1980 and 2000.

Per Cent Difference in Weekly Earnings Compared to High School Completers—2000

	Trades Education	College	Bachelor's
Males	18	19	51
Females	16	20	62

Source: Boothby, Daniel, and Torben Drewes, "Post-Secondary Education in Canada: Returns to University, College and Trades Education," *Canadian Public Policy*, XXXII:1, 1-21 (2006).

To obtain these payoffs, students pursuing post-secondary education incur a variety of costs, both direct costs (tuition, books, etc.) and opportunity costs, in terms of forgone earnings. As discussed later in this paper (see the section "Education Costs Incurred by Post-Secondary Students"), the magnitude of these costs varies considerably from student to student, but \$21,000 roughly approximates the typical before-tax cost (including forgone earnings) of a year of post-secondary education, implying an \$84,000 investment for a four-year degree.

The payoff from a post-secondary education can be weighed against the cost of obtaining it by computing a rate of return. The prospective student may then decide whether the rate of return is high enough to make education a good financial investment.

A recent C.D. Howe Institute Commentary (see footnote 3) summarized various studies of rates of return to first-degree university study over the 1970s, 1980s and 1990s. It found that over that period, the after-tax rate of return was 11-12 per cent for males and 15-16 per cent for females.

Casting the externality net even further, it can be argued that education also imparts "civic virtues" that make society function well, such as awareness and involvement in public issues, community participation and volunteerism.

The presence of these spillover benefits means that government subsidization of investments in education improves the well-being of Canadians. Government spending on education and tax measures targeted at students can encourage individuals to engage in more education than they would if they were driven only by internal, personal rewards.

A second reason put forth for government involvement in education investment decisions is to offset limitations in financial markets. Students may be financially constrained from acting on educational opportunities if lenders will not extend credit to them based on their increased income prospects. The Government may have a role in correcting such credit market failures by becoming directly involved in lending to students.



Effective Tax Rate Framework

The tax system can modify the attractiveness of investing in education, either by making the upfront costs less onerous or by increasing the net reward by reducing taxes on the resulting earnings. The effective tax rate framework is a helpful tool in analyzing the impact of the tax system on incentives to make such investment.

Consider the situation of individuals deciding whether or not to take part in post-secondary education. They can compute a rate of return on the investment, which measures how much more they will expect to earn over a lifetime in comparison to the direct costs (tuition, books, etc.) and income forgone during the study years. The rate of return can be computed on both a pre-tax and an after-tax basis. The proportional difference between the pre-tax and the after-tax rates of return shows the degree to which taxes alter the financial incentives to invest in education. This wedge between the pre-tax and after-tax rate of return is known as the effective tax rate on such investments (see Box 2).

The effective tax rate will be affected by a variety of factors, both tax and non-tax. Anything that alters the before-tax rate of return, such as the cost and duration of an education, the earnings premium from an education, or the time pattern of earnings with and without education, can have an impact. Holding these influences constant, tax variables such as tax rates, credit rates and deductibility rules have an effect as well.

Tax policy analysis uses the effective tax rate framework to determine the extent to which existing or proposed tax measures modify the financial attractiveness of an investment. If all of the costs of investing in education are recognized for tax purposes (i.e. fully deductible/creditable and used in the year they occur) and the incremental income earned is taxed at the same rate as the initial reference level, the effective tax rate will be zero, signalling that the tax system is not altering incentives.² Progressivity is, however, a fundamental feature of Canada's personal income tax system, so the incremental income arising from the investment will be taxed at a higher rate, making it highly likely that the effective tax rate will be greater than zero. On the other hand, as will be seen below, government spending is strongly supportive of post-secondary education, and the net effect of the two policies is to encourage educational investment while preserving an element of progressivity in the tax system.

² Most students, if they are taxable, face the lowest marginal tax rate; hence credits are roughly equivalent to deductions for this income group (see Box 4 for a more detailed discussion).

Box 2: Rates of Return and Effective Tax Rates

The table below lays out a simple, stylized example of the financial consequences facing someone contemplating an investment in post-secondary education. It assumes:

- investing in higher education leads to four in-school years of zero earnings followed by earnings of \$40,000 per year over a 40-year career;
- direct costs of four years of post-secondary education are \$30,000; and
- not investing in higher education leads to earnings of \$20,000 per year over a 44-year career.

Before Tax		Education Period (Age 18-21)	Working Period (Age 22-61)
		(\$)	(\$millions)
1. Earnings as a PSE graduate		0	1.6
2. Costs	Direct (tuition, books, etc.)	30,000	0.0
	Forgone earnings = earnings as a high school graduate	80,000	0.8
3. Net extra earnings (1. - 2.)		-110,000	0.8

Investing in higher education costs \$110,000 during the school years in this example and, after graduation, returns \$0.8 million in extra earnings. The investment occurs upfront and the reward is received later. The rate of return calculation takes the "time value of money" into account by discounting future amounts at the internal rate of return. In this example, the before-tax rate of return is calculated as 14.6 per cent.

Now introduce taxes. Taxes on earnings reduce take-home pay for both those who undertake post-secondary education and those who do not. Tax deductions or credits available during the school years reduce the cost of education.

The numbers in the table below assume that:

- the tax rate on income up to \$20,000 per year, the amount earned by the high school graduate, is 15 per cent;
- the tax rate on income above \$20,000 is 25 per cent; and
- a 15 per cent tax credit is available on amounts spent on direct costs of post-secondary education.

After Tax		Education Period (Age 18-21)	Working Period (Age 22-61)
		(\$)	(\$millions)
1. Earnings as a PSE graduate		0	1.28
2. Costs	Direct (tuition, books, etc.)	25,500	0.00
	Forgone earnings = earnings as a high school graduate	68,000	0.68
3. Net extra earnings (1. - 2.)		-93,500	0.60

In this example, investing in higher education costs \$93,500, after tax, during the school years. After graduation, it returns \$0.6 million in additional after-tax income. Based on these figures, the after-tax rate of return is 13.1 per cent. The effective tax rate is the proportional difference between the before- and after-tax rates of return. In this example, the effective tax rate is 10 per cent, calculated as $(14.6 - 13.1) / 14.6$.



Education Costs Incurred by Post-Secondary Students

Forgone Earnings

One of the largest costs borne by those who decide to invest in education results from the fact that students have less opportunity to work for pay.

Data show that individuals with high school degrees who do not participate in post-secondary education earned, at the median, around \$20,000 per year during the time they would otherwise be going to university (i.e. ages 19 to 22).³ Assuming a typical full-time student works during the summer, going to school therefore “costs” post-secondary students roughly \$15,000 per year in forgone earnings.⁴ Of course, the median or average figures may not be too revealing of the forgone earnings of students in particular situations. The range of earnings of high school graduates is quite broad. An individual student might have found a \$20,000-per-year job if he or she had not gone on for post-secondary education, or might have found one that paid much more, or might have found no job at all. A student with a scholarship as well as part-time and summer earnings might have done as well financially by going to school as with a \$20,000-per-year full-time job. Indeed, the concept of forgone earnings is rather subjective, since it is based on a calculation involving a student’s best guess as to “what might have been.”

Direct Costs

It is important to distinguish outlays of post-secondary students that can truly be considered as their costs of choosing to invest in education in contrast to spending that would have taken place in any case, in or out of school. A good number of outlays are made by both students and non-students alike. When calculating the financial ramifications of investing in education, it is only the incremental costs associated with going to school that are relevant.

³ Collins, Kirk A., and James B. Davies, “Carrots & Sticks: The Effect of Recent Spending and Tax Changes on the Incentive to Attend University,” C.D. Howe Institute Commentary No. 220 (October 2005). The authors estimated forgone (before-tax) earnings in 2003 of \$14,715. University students are assumed to work during the summer months and earn one-third of the yearly, median income for full-time, full-year workers (\$20,066), less 20 per cent to capture summer employment search time.

Not adjusting for wage growth or inflation, median male and female high school graduates at 23 years of age earned \$23,000 and \$18,200, respectively, in 1997. See Collins, Kirk A., and James B. Davies, “Tax Treatment of Human Capital in Canada and the United States: An Overview and Examination of the Case of University Graduates,” *North American Linkages: Opportunities and Challenges for Canada*, The Industry Canada Research Series, edited by Richard G. Harris. Calgary: University of Calgary Press (2003).

⁴ EKOS Research Associates, *Investing in Their Future: A Survey of Student and Parental Support for Learning* (2006). In 2003–04, summer employment earnings were \$4,847 on average among students who worked, or \$3,461 on average for all students, including those without summer earnings. Earnings from jobs while at school were \$6,612 on average for all students who worked (\$4,881 for full-time students with part-time jobs). It is debatable whether pay from part-time jobs while at school should enter the calculation of forgone earnings. On the one hand, it clearly does narrow the in-school/not-in-school earnings gap. On the other hand, students only realize these earnings by working beyond normal hours, assuming normal working hours and normal study hours are similar. Students with part-time jobs are forgoing the earnings that non-students make during normal working hours, plus the free time that non-students enjoy after working hours. The wages students receive for part-time work is compensation for the sacrifice of free time and, it can be argued, does not affect the calculation of forgone, normal working hour, earnings.

A number of expenses are inarguably incremental. Tuition fees, for example, are clearly something that students incur and non-students avoid, as are compulsory school fees. Similarly, there is no doubt that purchases of textbooks and school supplies are education costs. Another example of expenses that are indisputably educational are interest payments on student loans.

There is similar certainty about costs that are borne by both students and non-students. Both students and non-students must eat and have a roof over their heads. These costs are independent of the going-to-school decision. Indeed, if fewer non-students live with their parents in order to benefit from free accommodation and food, it may be said that these are incremental direct “benefits” of investing in education in that they reduce the reference cost level.

There are also some grey areas. Students may have a greater need for a computer and ancillary equipment than non-students. However, it could be argued that more and more these days, non-students also need a computer. Outside the classroom, the lifestyle of students and non-students may differ and bring with it differences in certain costs, such as increased entertainment expenses for students. However, these would not normally be considered costs associated with acquiring an education. More post-secondary students may live away from their hometown than non-students of the same age group, so travel from home to school and back may be regarded as an educational expense, broadly defined. On the other hand, daily commuting expenses may be higher for the working individual since a good number of students live on campus or nearby.

The list below provides some information of the quantitative importance of educational and quasi-educational expenses.

Tuition Fees

Statistics Canada data⁵ show that annual university undergraduate tuition fees will average \$4,347 in 2006–07, ranging from \$1,916 in Quebec to \$6,571 in Nova Scotia.

Tuition fees also differ by faculty, with a year of study in a faculty of education costing on average about one-quarter as much as a year of study in dentistry (\$3,334 versus \$13,463). Graduate programs are generally more expensive, with tuition averaging \$6,479.

In a survey⁶ of over 7,500 post-secondary students, EKOS Research Associates estimated similar results for 2003–04—average tuition of \$4,134 (\$4,415 in 2006 dollars).

As part of the needs assessment work undertaken to determine the adequacy of loans provided under the Canada Student Loans Program (CSLP), information is collected from applicants regarding their expenditures.⁷ In 2003–04, the nearly 400,000 applicants reported average tuition fees of \$4,782 (\$5,107 in 2006 dollars). The 10 per cent of applicants with the highest tuition costs spent \$13,331 on average (\$13,962 in 2006 dollars).

⁵ Statistics Canada, “University Tuition Fees,” *The Daily* (September 1, 2006).

⁶ EKOS Research Associates, *Investing in Their Future: A Survey of Student and Parental Support for Learning* (2006).

⁷ Analysis provided by Human Resources and Social Development Canada based on needs assessment data from Canada Student Loan applicants.



Other Fees

According to Statistics Canada,⁸ compulsory student fees will add another \$619 to post-secondary expenses in 2006–07, varying from \$341 in New Brunswick to \$719 in Ontario. These additional fees include recreation and athletics, student health services and student association fees, which are not eligible for the tuition tax credit.

Books, Equipment and Supplies

EKOS reported that in 2003–04, post-secondary students spent on average \$967 (\$1,032 in 2006 dollars) on books and educational supplies.

The CSLP needs assessment data put books and supplies spending at a similar \$936 on average for 2003–04 (\$1,000 in 2006 dollars). The provincial variation in average books and supplies expenditures was relatively narrow, ranging from about \$900 to \$1,100, with the exception of Newfoundland and Labrador, where students got by with less than \$500 worth of books and supplies. The data also showed that the top 10 per cent paid out \$2,122 each on books and supplies.

Statistics Canada conducted a survey of post-secondary students and their families based on their 2001–02 experience.⁹ Respondents were asked about their total education costs (tuition, books, supplies) rather than amounts spent on individual categories of expenditures. University students reported education costs of \$5,200 during the year, compared to \$3,200 for college students (\$5,674 and \$3,492 in 2006 dollars). These numbers, while not as detailed and from an earlier year, are consistent with those obtained from Statistics Canada's tuition report, the CSLP needs assessment and the EKOS survey.

Loan Expenses

Post-secondary students generally have higher expenses and lower incomes than those who enter the workforce immediately after high school. Consequently, they must often borrow to cover the gap between their financial needs and resources during their study years. Statistics Canada found that about half of college and university (bachelor) graduates left school owing money they had borrowed for their education.¹⁰ Most of the debt was incurred through government student loan programs.

Eventually, usually after graduation, those loans must be repaid. In terms of measuring loan costs of investments in education, it is important to distinguish the repayment of principal from the payment of interest.

⁸ Statistics Canada, "University Tuition Fees," *The Daily* (September 1, 2006).

⁹ Ouellette, Sylvie, "How Students Fund Their Postsecondary Education: Findings from the Postsecondary Education Participation Survey," Statistics Canada, Catalogue No. 81-595-MIE2006042 (2006).

¹⁰ Allen, Mary, and Chantal Vaillancourt, "Class of 2000: Profile of Postsecondary Graduates and Student Debt," Statistics Canada, Catalogue No. 81-595-MIE2004016 (2004).



A loan is taken out to help cover a student's expenses. Including both the original expenses and the repayment of loan principal as separate costs would result in double counting. A student who takes out a \$5,000 loan to pay a year's tuition fee and who later repays the \$5,000 to the lender does not have \$10,000 in costs. If expenses (tuition fees, books, etc.) have already been included, the repayment of loan principal should be ignored in computing the costs of investing in education.

Interest payments are conceptually a different, more complicated matter.

- It could be argued that interest payments are an expense that arises only because of a decision to invest in education. Students typically borrow money and incur interest costs simply because they decide to go to school, so interest payments, following this line of reasoning, are clearly a cost of investing in education.
- When it comes to designating the costs that should be recognized for tax purposes, the case for interest payments is less compelling. If taxpayers, whether students or businesses, are allowed to deduct the full cost of an investment at the time it takes place (i.e. to use cash-flow accounting), it is not necessary to also allow deductions for interest payments on loans used to finance the investment. For example, contributions to a registered retirement savings plan are allowed as a deduction, so interest paid on money borrowed to make the contributions is not deductible.

Leaving this conceptual debate aside, arriving at an empirical estimate of typical interest payments on student debt is no simple matter.

There is wide variation among students in amount of debt, repayment schedules and interest rates attached to loans. Statistics Canada reports that graduates in 2000 who had debts two years after graduation owed on average \$12,600 (college) and \$19,500 (university with a bachelor's degree),¹¹ for an overall average of about \$15,000 of debt. But about half of the graduates had no debt two years after graduation, implying average indebtedness of all class of 2000 graduates of about \$7,500 in 2002. EKOS reports a similar figure (\$7,000) for average debt for all students in 2003–04. At a 7-per-cent interest rate, interest payments on debts of this magnitude would be around \$500 per year.

Averages such as these are often deceptive, particularly in the case of student debt. Given all the factors at play—amount of debt, the interest rate, the repayment schedule, government relief measures—it is difficult to say what a “typical” case might be.

Travel Costs

Travel is one of the grey areas in terms of education costs. Post-secondary students attending school away from their hometown have to travel to school at the beginning of the academic year, usually returning home again at the end of the year, and typically make one or more trips during the school year. However, their counterparts in the workforce whose jobs are in another town may also return to their parents' home several times per year. To the extent that students return home more often, their extra travel costs may be offset by rent savings if they stay with their parents during the summer.

¹¹ Unfortunately, Statistics Canada's survey on student debt (see footnote 9) did not deal with repayment. The figures on debt load cited here refer to the total debt (government and non-government), two years after graduation, of graduates who pursued no further education. Only graduates who had some government debt are included in this calculation.



Even if travel expenses were judged to be legitimate education costs, it would be difficult, as a practical matter, to estimate their magnitude. Travel costs, which vary with distance, mode of transportation and number of trips, would differ considerably from student to student. Unfortunately, none of the information sources cited above deal specifically with student travel costs.

Moving Expenses

There is considerable overlap between travel and moving expenses. It is not important here to delve into their finer definitional nuances. It is worth pointing out, however, that the same debate over whether travel expenses are true costs of investment in education pertains to moving expenses as well. Resolving that debate would leave the empirical problem of obtaining information on student moving costs unresolved. Readings on actual moving costs of post-secondary students are as difficult to come by as are their travel outlays.

Summary of Costs

In acquiring a post-secondary degree, undergraduate students forgo some earnings, pay tuition and other fees, and purchase textbooks and other supplies for their coursework. Costs for a typical student total approximately \$21,000 per year of study, based on available data sources.

Annual Cost of Undergraduate Study

Forgone earnings	\$15,000
Tuition	\$4,347
Additional fees	\$619
Books and supplies	\$1,000
Total	\$20,966

Tax Recognition of Costs

Students, who invest in post-secondary education, increase their earning power, and their extra earnings mean extra income taxes. However, the income tax system recognizes the costs of investing in post-secondary education by allowing students a tax credit or a tax deduction for expenses incurred (tax credits versus tax deductions are discussed in Box 4). If all costs are recognized fully in the year that they occur, only net extra earnings are subject to tax.

This section looks at different types of education costs and how they are reflected in the income tax system.

Forgone Earnings

The tax system provides no explicit deduction for the cost of forgone earnings. Deductions are designed to remove from the ambit of taxation certain amounts of income that would otherwise be subject to tax. Since the forgone income was not taxed in the first place, there is no need for an explicit deduction.



Tuition Tax Credit

Students attending universities, colleges or other post-secondary educational institutions certified by Human Resources and Social Development Canada are entitled to a federal tax credit on the eligible tuition fees they pay.¹² The amount of tuition is multiplied by the lowest tax bracket rate (15.5 per cent as of July 1, 2006) to calculate the value of the credit. Provincial credits are also available, with the rates varying from province to province. Unused portions of this credit can be transferred to supporting family members or carried forward by the student.

In 2003 (the latest year for which data are available, when the credit rate was 16 per cent), over 2 million students claimed federal tuition tax credits in respect of fees of nearly \$4.8 billion. The average tuition amount reported was about \$2,200.

If all \$4.8 billion of these tuition payments had been used to generate credits to reduce 2003 tax payments (either those of the student or of a supporting person to whom they were transferred), the cost to the federal government would have been over \$750 million (16 per cent of \$4.8 billion). It is not always possible, however, for the student to claim the credit in the year it is earned because he or she may have insufficient taxable income. In these cases the credit can be transferred to a supporting person, or carried forward to reduce taxes in a future year.

Education Tax Credit

This credit is designed to recognize the direct costs of investing in higher education, apart from tuition. The federal tax system uses a standard monthly amount (\$400 for full-time students and \$120 for part-time students) to reflect these costs. Students in a qualifying educational program at a designated educational institution are entitled to a tax credit based on the number of months they are enrolled.¹³ The federal credit amount is multiplied by the lowest tax bracket rate (15.5 per cent as of July 1, 2006) to calculate the value of the credit. Provinces have similar provisions.

As with the tuition tax credit, unused portions of this credit can be transferred to supporting family members or carried forward by the student.

¹² Eligible tuition fees include admission fees, charges for library and laboratory facilities, exam fees, application fees, charges for certificates, and membership or seminar fees related to programs. Some fees are specifically identified as ineligible—social and athletic, medical care or health services, transportation and parking, board and lodging, cost of goods of enduring value retained by students (e.g. microscope, uniform), initiation into professional organizations and penalties. For students taking correspondence courses, the eligible course fees may include books, cassettes, CDs, etc., that the students are required to buy. For students at flight training schools, the cost of flying time may be eligible. (Canada Revenue Agency, Interpretation Bulletin IT-516R2, *Tuition Tax Credit*).

¹³ Designated educational institutions include universities, colleges and other post-secondary institutions. A qualifying program must involve at least 10 hours of instruction or work per week for the duration of the program. Full-time students are enrolled in 60 per cent or more of the usual course load. (Canada Revenue Agency, Interpretation Bulletin IT-516R2, *Tuition Tax Credit*).

Part-time students who qualify for the disability amount or were enrolled part-time due to mental or physical impairment can claim the full-time education tax credit amount for each month of study. Under the medical expense tax credit, people with disabilities are also able to claim expenses related to education and employment, such as tutoring, note-taking services and talking textbooks.



In 2003 (the latest year for which data are available), 1.5 million students claimed the federal education tax credit for full-time study and nearly 700,000 for part-time study. There may be some overlap in these numbers, as some students likely engaged in full-time study for some months of the year and part-time study for others. There is no duplication, however, in the total amount claimed (\$4.3 billion). The average education tax credit amount for full-time study was about \$2,600, or 6½ months of study at \$400 per month. For part-time study, the average claim was for just under \$600, or roughly 5 months of study at \$120 per month.

Assuming that the entire \$4.3 billion was used in 2003, the education tax credit would have cost the federal government some \$700 million in reduced taxes that year (16 per cent of \$4.3 billion). But the same proviso made in the case of the tuition tax credit, that some credits are not used to reduce taxes in the year that they are earned, also applies to the education tax credit.

Information on carry-forwards and transfers is not available separately for the tuition and education tax credits. In 2003, the total amount used for these two credits, including transfers and amounts brought forward from earlier years, is estimated at \$1.2 billion.

Textbook Tax Credit

A federal textbook tax credit amount of \$65 per month for full-time students and \$20 for part-time students was introduced in the May 2006 budget. The credit amount is multiplied by the lowest tax bracket rate (15.5 per cent as of July 1, 2006) to calculate the credit. Unused portions of this credit, like the education and tuition tax credits, may be transferred to supporting family members or carried forward by the student.

The 2006 budget estimated that the cost of this new credit would be \$135 million in 2006–07 and \$125 million in 2007–08.

Summary of Tuition, Education and Textbook Tax Credits

In terms of cost recognition, the tuition tax credit amount covers the entire amount the student pays in tuition, without restriction. The education and textbook tax credit amounts are designed to cover the typical non-tuition costs of post-secondary education. For a full-time student attending school for eight months a year, the combined education and textbook tax credit amount is \$3,720 (see Box 3). Data show that, on average, students spend about \$1,600 on textbooks, supplies, equipment and compulsory fees not eligible for the tuition tax credit. Extending the definition of education costs to allow for grey-area items such as home-to-campus travel and moving expenses would not change the conclusion that the tax provisions are ample to cover the outlays of average post-secondary students.

Box 3: Impact of the Tuition, Education and Textbook Tax Credits

A student attending a full-time program at a Canadian university for eight months of full-time study, paying tuition of \$4,000, is entitled to the tax credits described in the table below. For the purposes of this table, provinces are assumed to offer credits equal to half the value of the federal education and tuition tax credits.

Credit	Amount	Value of Tax Credit ¹		
		Federal	Provincial	Total
Education	\$400 * 8 months = \$3,200	\$3,200 * 15.5% = \$496	\$3,200 * 7.75% = \$248	\$744
Textbook	\$65 * 8 months = \$520	\$520 * 15.5% = \$80.60		\$80.60
Tuition	\$4,000	\$4,000 * 15.5% = \$620	\$4,000 * 7.75% = \$310	\$930
Total	\$7,720	\$1,196.60	\$558.00	\$1,754.60

¹ As of July 1, 2006.

As a result of these credits, a student's taxes (or that of his/her supporting family member) could be reduced by \$1,754.60.

Student Loan Interest Tax Credit

Interest paid on loans under the Canada Student Loans Act, the Canada Student Financial Assistance Act or similar provincial or territorial government laws for post-secondary student loans is eligible for a federal tax credit.

The credit is determined by multiplying the lowest tax bracket rate (15.5 per cent as of July 1, 2006) by the amount of interest paid.

The credit applies to interest paid on qualifying student loans. Unlike the education, textbook and tuition tax credits, the student loan interest tax credit cannot be transferred to another person. Unused portions of the credit can be carried forward for up to five years and used by the student in years when tax would otherwise be payable.

In 2003, 700,000 tax filers reported paying over \$400 million in interest on student loans, or about \$600 each on average. With a credit rate of 16 per cent that year, the federal tax relief provided by this measure was worth about \$70 million.

Moving Expense Deduction

Students are allowed to deduct moving expenses from salary, wages or self-employment income earned at their new location. In addition, they may deduct from scholarship, fellowship, research grant and similar award income moving expenses incurred in order to study at a post-secondary institution, although it should be noted that Budget 2006 fully exempts such income from tax effective for the 2006 and subsequent taxation years.

Child Care Expense Deduction

Child care expenses are deductible, generally against earned income, by tax filers who satisfy a list of criteria. One of these is that, when the child lives with both parents, the parent with the lower income must report the deduction. This parent is likely to be in a lower tax bracket, or not have any taxable income at all, making the deduction less valuable than if it were available to the higher-income parent. However, there is an exception: the parent with the higher income may claim the deduction if the other parent is a student. This provision may ease the financial burden of paying for child care while one parent works and the other goes to school. Parallel assistance is provided to single parents studying full time (or to two-parent families, where both adults are studying full time) by allowing them to claim the child care expense deduction against all types of income.

Tax Treatment of Income

Scholarship and Bursary Income Exemption

As planned in the 2006 budget, scholarship, fellowship and bursary income received by a post-secondary student will be fully exempt from tax for the 2006 and subsequent taxation years. Previously, the exemption covered only the first \$3,000 of annual income from these sources.

In 2003, when the \$3,000 cap was in effect, around 106,000 post-secondary students reported receiving scholarship-type income of some \$796 million; approximately \$319 million of that amount was exempted from taxation.

The 2006 budget placed the benefit to students of removing the cap at \$50 million of reduced federal tax payments in 2006–07 and \$45 million in 2007–08.

Registered Education Savings Plans

Parents and others may set up a registered education savings plan (RESP) to help pay for the cost of a beneficiary's post-secondary education. The contributor is not entitled to a tax deduction for amounts paid into an RESP, but the investment income generated within the RESP is not taxed until it is withdrawn, and then is taxed in the beneficiary's hands rather than the contributor's. The deferral of tax payments on the investment income and taxation in the hands of the RESP beneficiary, who is typically in a lower tax bracket, are both advantageous from the contributor's perspective.

RESPs are estimated to have saved contributors and beneficiaries \$130 million in taxes in 2003.¹⁴

The Government also provides matching contributions (Canada Education Savings Grants), and in some cases support that requires no matching (Canada Learning Bonds), making RESP's even more financially attractive as a means of financing post-secondary education.

¹⁴ Estimates appear in "Table 1—Personal Income Tax Expenditures" in Part 1 of this publication.

Box 4: Credits Versus Deductions

The tax credits described in this paper are all provided at the same rate at which taxes are imposed on income in the lowest tax bracket—15.5 per cent as of July 1, 2006. If a post-secondary graduate eventually earns income that places him or her in a higher tax bracket, that income will be taxed at more than 15.5 per cent. Taxing income at a higher rate than that used for recognizing costs raises the effective tax rate on investment in education.

However, allowing a deduction rather than a credit for education costs would not have much impact on the effective tax rate on investment in education. At the time they incur education costs, students generally have low incomes. They are generally in the lowest, 15.5 per cent, tax bracket. A deduction would generally be worth the same as a tax credit to them—15.5 per cent of the costs.

Unused deductions can be carried forward but, consistent with the cash-flow approach to taxing investment in education, accumulated deductions must be used in the earliest year in which the graduate would otherwise have to pay tax. A student's income (and tax bracket) in early post-graduation years is likely to be low compared to what the graduate will experience over a lifetime, so the impact of switching from credits to deductions would be small.

Transferring the deduction to a spouse or parent in a higher tax bracket would also reduce the effective tax rate on the investment, although not necessarily from the student's perspective. Furthermore, limits on transferability and the requirement to reduce the student's taxable income to zero before transfers of deductions are permitted would reduce the impact.

Graduated Rates

As discussed in Box 4, positive effective tax rates may result if the direct costs of an investment are incurred and recognized at one point in time and the income payoff from the investment is realized later. This phenomenon is particularly evident in tax systems with graduated rates.

Graduated rates introduce complications even in the absence of direct costs. Recall that one of the costs of an investment in education is the income forgone by going to school rather than working immediately after high school. The income of high school graduates, particularly in the first few years on the job, is typically lower than the income their post-secondary graduate counterparts earn after graduation, and is taxed at a lower rate in a progressive tax system. As a result, when it comes to comparing with-education and without-education income streams, there is a wedge between the pre-tax and post-tax comparisons. With graduated tax rates, the after-tax return on an investment in education will be lower than the pre-tax return.¹⁵

¹⁵ The impact of graduated tax rates would be attenuated if students were allowed to carry back some of their post-graduation income for tax purposes and report it in the years when they had been at school. The benefits in terms of reducing tax-induced distortions would have to be balanced against considerations of fairness as well as the increased complexity and administrative burden created.



The favourable recognition of costs through the education and textbook tax credits along with the tax treatment of scholarships and RESP investment income provide a partial offset, on average, to the impact of graduated rates, thereby contributing to a lower effective tax rate on investment in education.¹⁶

Summary of Tax Treatment

The income tax system recognizes all of the costs of investing in post-secondary education.

- Forgone earnings are implicitly recognized by the tax system. Earnings are taxed in the hands of the high school graduate comparator, while the post-secondary student who forgoes those earnings does not pay the associated taxes.
- Tuition costs are fully recognized under the tuition tax credit.
- Other educational expenses for the average post-secondary student total about \$1,600 to \$2,000 per year. The federal education and textbook tax credits are roughly twice as large, at \$3,720 for eight months of study. These credits can be used even when the student is not in a tax-paying position via transfers and carry forwards.
- A credit is available for an unlimited amount of student loan interest paid. For maximum flexibility, the credit can be carried forward up to five years.
- Certain types of income—scholarships and RESPs—used to finance investments in education receive favourable tax treatment

These tax features make the decision to go to college, university or trade school more financially attractive than it would be on a without-tax basis. However, there are offsetting effects flowing through the graduated rate structure of the tax system. Where the tax system comes out on balance is an empirical matter, one that will be explored in the next section.

Effective Tax Rates on Investments in Post-Secondary Education

The rate of return on an investment in post-secondary education can be computed before and after tax. The effective tax rate is the proportional difference between the before- and after-tax rates of return (see Box 2).

The mathematical process of computing a quantitative estimate of this rate is relatively manageable. The empirical process of doing so, based on real-world experience, is more complex. As a result, there is no simple answer to the question, “What is the effective tax rate on investments in post-secondary education?”

Situations facing potential post-secondary students vary greatly. As discussed earlier, the cost of education differs from program to program, from province to province, from institution to institution and from student to student. The income forgone during the in-school years depends on the alternative job opportunities open to the particular student. The income premium resulting from attaining a post-secondary education is again student-specific. Finally, the amount borrowed

¹⁶ Given that other education-related expenses are recognized as they are incurred, the credit for student loan interest could also be viewed as a preference that offsets the impact of rising marginal tax rates.

to pay for the education, the loan repayment profile and the interest rate applied to the loan are far from uniform. Each of these cost, income and borrowing factors interacts with the tax system and affects estimates of actual effective tax rates.

Existing Research on Undergraduate Effective Tax Rates

A recent study by Collins and Davies¹⁷ computed effective tax rates for many combinations of these factors. In their base case estimations, they looked at single students with no dependants, since changes in family status would have tax ramifications that would feed back into the computed effective tax rate. Similarly, they avoided the complications that would have been introduced by allowing for tax-favoured income sources—specifically assuming no income from scholarships or RESPs and no flows into or out of registered retirement savings plans or registered pension plans. They looked only at the federal and Ontario tax systems.

Collins and Davies estimated the median employment earnings of males and of females in various age categories with different educational attainments as portrayed in Statistics Canada's 1998 *Survey of Consumer Finances*. Their sample was restricted to people working full-time for the full year. Each of the 1998 earnings observations was escalated to 2003 by applying the growth rate in average earnings over the intervening period. A student's lifetime earnings path was proxied by the estimated median earnings of people of different ages in 2003.

Collins and Davies found that effective tax rates on investments in post-secondary education are positive, as the impact of graduated tax rates more than offsets the treatment of costs by the tax system.¹⁸ The Department of Finance has adapted the Collins and Davies methods to produce preliminary estimates of effective tax rates using 2006 tax parameters. As shown in Chart 1, the effective tax rate on education is, however, substantially less than the marginal effective tax rate on physical capital estimated by the Department.¹⁹

Differential tax treatment of human capital is appropriate given the ample evidence of externalities associated with investment in post-secondary education.²⁰ In contrast, with the exception of research and development investment, which is not included in the marginal effective tax rate shown in Chart 1, there is no consensus that investment in physical capital provides significant benefits to society that are not captured by the firms making the investment.

¹⁷ Collins, Kirk A., and James B. Davies, "Carrots & Sticks: The Effect of Recent Spending and Tax Changes on the Incentive to Attend University," C.D. Howe Institute Commentary No. 220 (October 2005). See also, by the same authors, "Measuring Effective Tax Rates on Human Capital: Methodology and an Application to Canada," *Measuring the Tax Burden on Capital and Labor*, edited by Peter Birch Sorensen. Cambridge, Mass.: MIT Press (2004).

¹⁸ Collins and Davies were obliged to simplify their representation of the tax system in order to have a manageable model for computing effective tax rates. Some of the measures they omitted would have reduced calculated effective rates. For example, Saskatchewan, Quebec, New Brunswick and Nova Scotia have tax rebate/credit schemes that either reduce taxes for, or provide grants to, new post-secondary graduates who work in the province.

¹⁹ The calculation for physical capital refers to an investment by a large firm that is small relative to its ongoing operations, hence the term "marginal effective tax rate." In the case of education, the investment is a four-year university degree, which represents a substantial fraction of all years of schooling and makes the expression "effective tax rate" more appropriate.

²⁰ See Davies, Jim, "Empirical Evidence on Human Capital Externalities," Department of Finance Working Paper 2003-11 (2003).



Government Expenditures: Effective Subsidy Rates

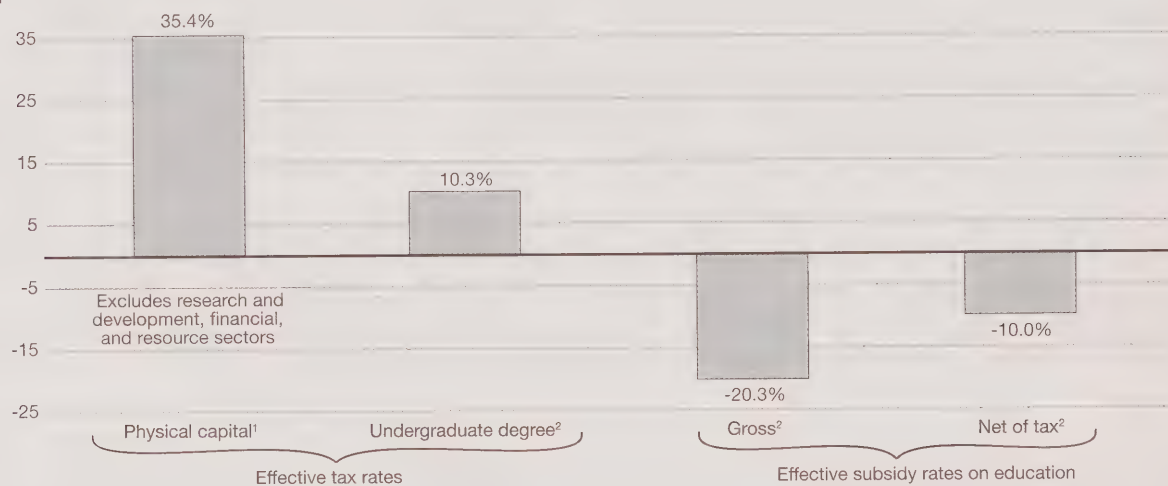
The finding of positive effective tax rates does not mean that government is discouraging investment in post-secondary education. Collins and Davies shed light on the overall impact of government actions when they investigate expenditure-side measures that raise the return to investments in education by reducing the cost to students. They find that once the impact of both the tax system and expenditure support is taken into account, the overall influence of government action is to encourage investment in post-secondary education. This conclusion is universal, for both males and females and across all fields of study.

For example, using preliminary Department of Finance estimates for 2006, the pre-tax effective subsidy rate (the impact of direct government funding to universities on rates of return) for bachelor-level graduates is just over 20 per cent. In other words, government spending on post-secondary students and institutions increases the rate of return that students get on their education by about 20 percentage points compared to what they would have received if they had borne all the costs themselves.

Chart 1

Effective Tax and Subsidy Rates on Investment in Physical Capital and Post-Secondary Education, 2006

per cent



¹ Department of Finance internal estimate for investments by large corporations.

² Preliminary estimates.



Net Effects of Taxes and Subsidies

Given an effective tax rate of approximately 10 per cent, government actions encourage participation in higher education by raising the return of those who chose to invest by about 10 percentage points (20.3 per cent minus 10.3 per cent). Subsidizing investment in human capital through government expenditures is an appropriate way of addressing externalities and market imperfections, in part because it allows the progressive nature of the tax system to be maintained. Ideally, the net subsidy would be equal to the spillover effects from investing in education plus a further amount to account for limitations in the credit market for students.²¹

Conclusions

Investments in higher education have been shown to be financially rewarding. Individuals deciding whether or not to attend college, university or trade school have a strong financial self-interest to do so.

Moreover, governments have good reasons for encouraging investment in education. First, society benefits from a more educated population beyond the rewards that accrue to the students themselves. Second, private lenders will not extend the optimal amount of credit to finance prospective students' investments in education, and governments have a role in helping overcome this market imperfection.

The income tax system alters financial incentives to invest in education. The effective tax rate on the return to education is a useful summary indicator of how the tax system is affecting the decision to invest. This study has presented evidence that, despite favourable recognition of costs incurred, the tax system reduces the return to education. This disincentive arises from a fundamental feature of the Canadian tax system—graduated tax rates—which results in the incremental return from education being taxed at a higher rate.

But taxes tell only part of the story. Government expenditures in support of post-secondary students and institutions provide strong financial encouragement for investing in higher education. Indeed, the same research that uncovers positive effective tax rates on investments in education finds an effective subsidy rate pulling strongly in the other direction. The supportive impact of expenditures exceeds the disincentive of taxes, leaving the Government with a pro-education stance overall. The net result of tax and spending programs is to encourage investment in post-secondary education while maintaining a progressive tax system.

²¹ See Davies, Jim, "Empirical Evidence on Human Capital Externalities," Department of Finance Working Paper 2003-11 (2003) for a review of the literature on the size of spillovers from investment in education.



Annex

Government Expenditures on Post-Secondary Education

The paper concentrates on government tax measures in support of post-secondary education. This annex provides a brief outline of government expenditures on post-secondary education.

Federal

The Government of Canada supports post-secondary education (PSE) primarily through transfers to provinces and territories. In 2006–07, the Government of Canada will provide approximately \$15.7 billion through the Canada Social Transfer, including \$8.5 billion in cash and \$7.2 billion in tax transfers for PSE, social assistance and social services, and early childhood development and early learning and child care.

In addition to the tax measures outlined in this publication, the Government of Canada also provides some \$3.9 billion annually in support for PSE in the form of direct spending:

- \$2.0 billion helps students deal with the costs of education, through grants, scholarships and student loan programs; and
- \$1.9 billion funds research and related activities in post-secondary institutions (granting councils, Canada Research Chairs, indirect costs of research).

This includes the Canada Millennium Scholarship Foundation (CMSF), which was created by the Government in 1999 with an endowment of \$2.5 billion (to be spent over 10 years) to provide bursaries and scholarships to students across Canada. Since 2000 the CMSF has distributed some \$300 million annually in bursaries and scholarships to approximately 95,000 PSE students.

Provincial

Provinces provide support for post-secondary education through:

- funding for post-secondary institutions;
- financial assistance (loans and grants) to post-secondary students; and
- tuition and education tax credits for students.

Several provinces (Saskatchewan, Quebec, New Brunswick and Nova Scotia) have introduced tax credits/rebates for post-secondary graduates who take a job in the province.



Federal Funding for Post-Secondary Education Programs²²

Support for PSE Institutions:

Canada Social Transfer ²³	<ul style="list-style-type: none">• Transfer payments to provincial and territorial governments for PSE, social assistance and social services, and early childhood development and early learning and child care.
Post-Secondary Education Infrastructure Trust	<ul style="list-style-type: none">• \$1 billion over two years for provinces and territories for infrastructure investments.

Direct Support for Students:

Canada Student Loans Program ²⁴	<ul style="list-style-type: none">• Interest paid by government during study.• Interest at below-market rates.• Interest and principal relief for those in financial difficulty.
Canada Study Grants ²⁵	<ul style="list-style-type: none">• Non-repayable financial assistance to PSE students with particularly high levels of need.• For students with permanent disabilities, students with dependants, high-needs part-time students, and females pursuing doctoral studies.
Canada Access Grant ²⁵	<ul style="list-style-type: none">• Support for students from low-income families and with disabilities.
Canada Graduate Scholarship ²⁵	<ul style="list-style-type: none">• Support for master's and doctoral students.
Canada Millennium Scholarship Foundation ²⁶	<ul style="list-style-type: none">• Provides bursaries and scholarships to students across Canada demonstrating need and merit.
Apprenticeship Incentive Grant	<ul style="list-style-type: none">• Announced in 2006 budget to be effective January 1, 2007.• Cash grant to apprentices in the first two years of an apprenticeship program.• Supplements the Apprenticeship Job Creation Tax Credit, also introduced in 2006 budget.

Support to Encourage Savings:

Canada Education Savings Grant ²⁷	<ul style="list-style-type: none">• Proportional matching of registered education savings plan (RESP) contributions.• Government matching per dollar contributed varies with family income.
Canada Learning Bonds ²⁷	<ul style="list-style-type: none">• Initial RESP contribution and ongoing payments.

²² The Government of Canada also provides support to help fund the post-secondary studies of Aboriginal students.

²³ Department of Finance, "Total Federal Support for Health, Post-Secondary Education, and Social Assistance and Social Services," www.fin.gc.ca/facts/tfsh2_e.html.

²⁴ Human Resources and Social Development Canada, "Canada Student Loans Program," www.hrsdc.gc.ca/en/gateways/nav/top_nav/program/cslp.shtml.

²⁵ CanLearn, Human Resources and Social Development Canada, "Canada Study Grants," www.canlearn.ca/cgi-bin/gateway/canlearn/template.asp?sc=pay/school/grants/index.shtml.

²⁶ Canadian Millennium Scholarship Foundation, www.millenniumscholarships.ca.

²⁷ Human Resources and Social Development Canada, "Canada Education Savings Grant," www.hrsdc.gc.ca/en/gateways/nav/top_nav/program/cesg.shtml.



Federal Funding for Post-Secondary Education Programs *(cont'd)*

Support for Research:

Granting Councils²⁸

- Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, Social Sciences and Humanities Research Council of Canada.
- Funding for research at universities, colleges and research hospitals.

Canada Research Chairs²⁹

- Federal funding for creation of university research fellowships.

Canada Foundation for Innovation³⁰

- Funding to strengthen the capacity of Canadian universities, colleges, research hospitals and non-profit research institutions.

²⁸ Canadian Institutes of Health Research, www.cihr-irsc.gc.ca/e/193.html;
Natural Sciences and Engineering Research Council of Canada, www.nserc.gc.ca/sf_e.asp?nav=sfnv;
Social Sciences and Humanities Research Council of Canada, www.sshrc.ca/web/home_e.asp.

²⁹ Canada Research Chairs, www.chairs.gc.ca/web/home_e.asp.

³⁰ Canada Foundation for Innovation, www.innovation.ca/index.cfm.

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